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The Funding of Postsecondary
Education in Canada

Can the Dilemma Be Resolved?

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**The Funding of Postsecondary
Education in Canada**

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Contents

Acknowledgments	vii
Foreword	ix
1 The Expanding Scope of Postsecondary Education in Canada	1
2 The Evolving Canadian Postsecondary Education System	3
Summary	5
The Scope of Canada's Present Postsecondary Education System	5
Students, Teachers, and Costs	5
3 Forging a National Postsecondary Education Policy	11
Constitutional Dilemma – Economic Necessity	11
The Fiscal Crisis of the 1980s – The Formula Begins to Erode	15
Changing the Structure of the Formula	19
The Structural Changes and Federal Spending	20
4 Future Funding of Postsecondary Education	24
Options and Choices	24
Constitutional and Practical Realities	25
Universities, Community Colleges, and Cegeps –	
Different Funding Policy Requirements?	26
A Voucher Program	28
Ability to Afford Differing Choices	29
Availability of an Increased Range of Choices within the	
Educational Marketplace	30
Adequate Knowledge to Make an Informed Choice among	
the Options: What Effect Would Vouchers Have on a	
Student's Ability to Choose a Course of Study?	32
Technical and Operational Considerations	32
Summary	34
Education-Industry-Government Partnerships:	
Stimulating Interaction	35
Access, Standards of Scholarship, and Research Funding	36
Access	36
Standards of Scholarship	38
Research Funding – A Strategy for Excellence	38
Short-Term Fiscal Constraints – Federal EPF Funding of	
Postsecondary Education	40

Stream A: Ending the Federal Role	44
Stream B: Maintaining a Federal Role	47
Summary	49
Bibliography	53
List of Tables and Charts	
Tables	
2-1 Higher education/total education expenditures as a percentage of GDP in OECD countries	11
2-2 Provincial contributions to postsecondary education as a percentage of GPP, 1977-78-1986-87	12
2-3 Provincial contributions to health as a percentage of GPP, 1977-78-1985-86	13
Charts	
2-1 Postsecondary education expenditures by source, Canada, 1985-86	8
2-2 Nonresearch expenditures on postsecondary education by source, Canada, 1985-86	8
2-3 Provincial support to higher education in Canada as a percentage of GDP, 1977-78-1985-86	9
3-1 Provincial spending versus EPF allocation to postsecondary education in Canada, 1977-78 and 1985-86	16
3-2 Provincial spending versus EPF allocation to health care in Canada, 1977-78 and 1985-86	17
3-3 Provincial support to higher education and health in Canada as a percentage of GDP, 1977-78-1986-87	18
3-4 Federal budget expenditures for health and higher education, Canada (all provinces), 1985-86-2008-09	21
4-1 Provincial spending on postsecondary education as a proportion of GPP, 1986-87	40
4-2 Federal budget expenditures for health and higher education, 1989-90-2004-05	41
4-3 Federal budget expenditures for health and higher education, Quebec, 1989-90-2004-05	43

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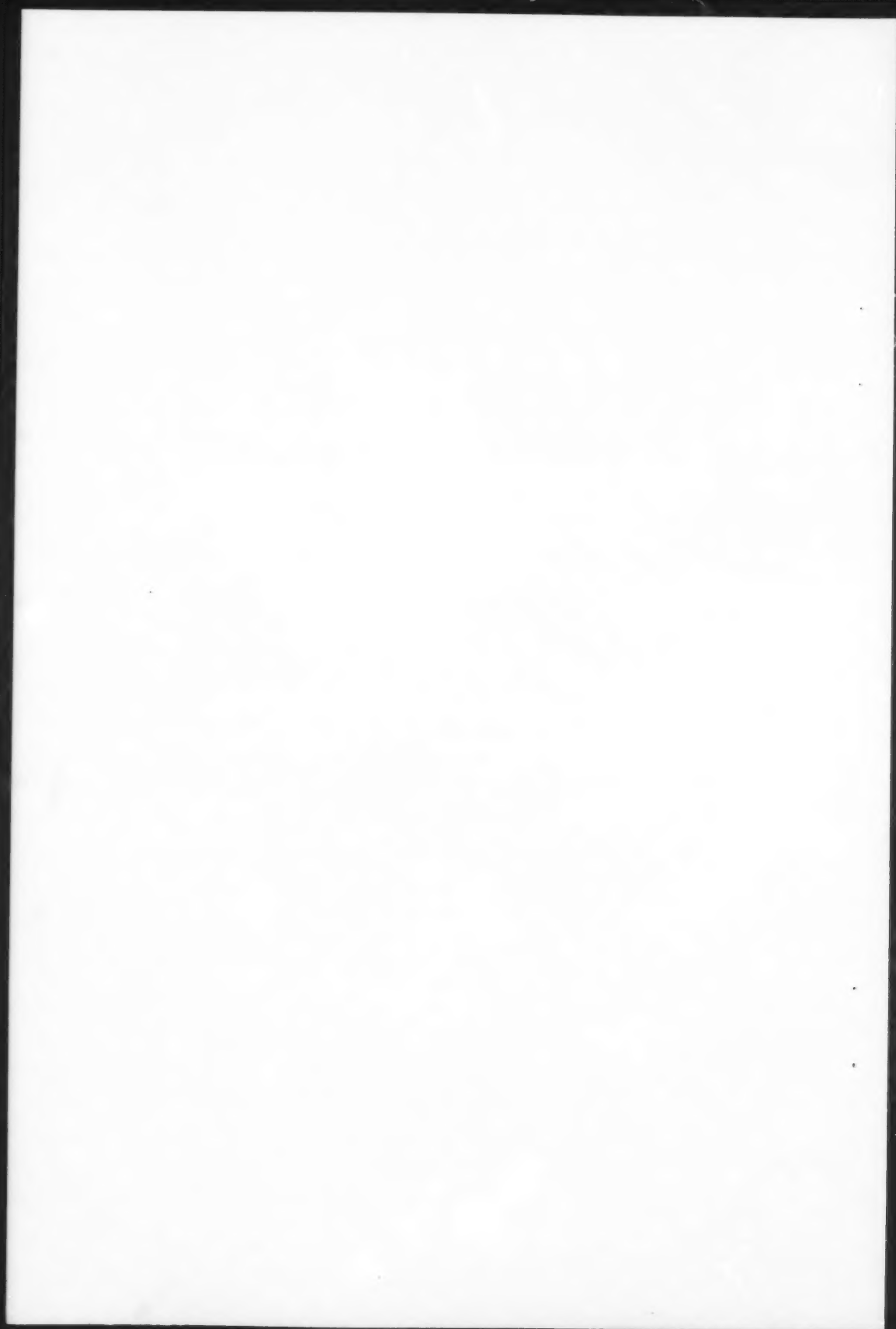
This paper was completed in July 1991, for the Economic Council of Canada as a background document for the Council's study of education which began early in 1990. More recently reports such as the comprehensive study of universities by Stuart Smith have served to underscore many of the issues raised in this paper. Both these reports and this paper agree that the major issues facing education are systemic and cannot be addressed simply as a matter of finance. Nevertheless, education finance policies and programs remain a potent factor in the overall direction of postsecondary education.

In preparing this paper, I received critical assistance from the staff of the Economic Council of Canada, under the direction of Keith Newton. Their comments and challenges were most helpful in clarifying the complex issues of the funding of postsecondary education in Canada.

My colleague and friend, Benjamin Levin, of the Faculty of Education, University of Manitoba, assisted in the development of the framework for the paper and provided comments and suggestions on various drafts. As usual, his insights were extremely helpful. Steven Lawton, of the Ontario Institute for Studies in Education reviewed the final draft and provided a number of suggestions which were most helpful.

Data for the paper were developed from federal and Statistics Canada sources, with the able assistance of Chris Anderson.

As is always the case, responsibility for the conclusions and recommendations must remain my own.



Foreword

Canada's learning system is under scrutiny. Our ability to develop the skills that will equip us to prosper in the information age is being questioned. Accordingly, the Economic Council of Canada has undertaken a major study of education and training that takes a hard look at various aspects of the performance of the system.

While pressures for improvements in education are mounting, fiscal constraints are severe. Thus the present working paper by Tim Sale, on the funding of postsecondary education in Canada, is particularly relevant at this time. A companion paper, by the same author, similarly examines funding structures and formulae in various jurisdictions at the elementary and secondary levels.

These studies are an integral part of a program of research which has culminated in the publication of a Council Statement entitled *A Lot to Learn* and a detailed analytical Research Report on education and training in Canada.

Judith Maxwell
Chairman



1 The Expanding Scope of Postsecondary Education in Canada

Most Canadians think that universities, community colleges, and trade and vocational colleges comprise our postsecondary education system. However, even a superficial examination soon reveals that this institutional framework is much more complex than is first assumed. Fire colleges, the Coast Guard College, military colleges, civil defense training centres, schools of nursing and other medical specialties, forestry colleges, and a myriad of other public-sector centres for skill training exist, sometimes in conjunction with, and sometimes quite separately from, traditional institutions.

In 1987, the Council of Ministers of Education of Canada (CMEC) and Statistics Canada launched a project to develop a consistent approach to definitions and data collection in postsecondary education. While there was fairly straightforward agreement on data concerning the university sector, it is significant that the remainder of the postsecondary system quickly became known to the technical committee as "the *non-university* sector." Does the sector begin after grade 12 or after grade 13? Are Quebec's Collèges d'enseignement général et professionnel (Cégeps) postsecondary, or partly "high school"? When is a trade school "postsecondary," and when is it just "continuing education." Or is all "continuing education" really "postsecondary education," including adult, evening, nondegree, noncredit courses?

The above discussion concerns only the institutional, public sector of the system. What of the extensive and often expensive private, corporate education systems of major companies such as banks and transportation systems? CN Rail maintains a locomotive engineering training centre in Gimli, Manitoba. IBM has its staff college, as do chartered banks. Virtually all corporations make extensive uses of contract services, ranging from one-day motivational seminars to long-term contracts for computer training. Hundreds of small and large private training establishments exist across Canada, ranging from well-known national companies such as Herzog, to small local groups with names such as "Polar Bear Training Centre" (a computer training centre).

In the not-for-profit field, churches provide education conference centres where short- and long-term training courses take place, unions have staff colleges, and professional associations support a wide variety of accreditation programs. Without elaborating a conscious policy, Canada has moved into a patchwork system of lifelong learning opportunities for some individuals and many professions.

Increasingly, the boundaries between the traditional institutional sector and the private sector are becoming blurred. Using the federal government's

2 The Funding of Postsecondary Education in Canada

Canadian Jobs Strategy (CJS), companies contract with community colleges and private organizations for specific training. Universities seek private-sector endowment support for centres such as management schools and institutes of various kinds. Governments desiring to promote employment equity or affirmative action programs seek special postsecondary admission criteria and ongoing support programs to ensure student retention. A careful examination of any major university in Canada would reveal a myriad of agreements with federal, provincial, private, and not-for-profit groups which give the university a decidedly market-oriented appearance, in spite of the staid image many still ascribe to "ivory towers of learning." Most Canadian universities now have a number of vice-presidents, with a great deal of emphasis on budget planning and control, analysis of student and course demands, and significant emphasis on public relations. University administrative systems increasingly resemble a corporate, rather than a traditional educational, model. A combination of government pressure and the high level of expenditures required for research, and scientific research in particular, are giving rise to interuniversity and/or industry-university consortia. In a broad sense, competitive marketing is no longer just a university course; it is a university's way of life.

This paper cannot fully unravel the complexity hinted at above. Indeed, this would be a most useful task for a major national study; one which, to date, has not been adequately undertaken. The analysis in this paper will be confined to the direct and indirect public funding of postsecondary education in Canada. In particular, it will focus on federal, provincial, and individual contributions to the costs of education in universities, trade and community colleges, and Cegeps. It will assess policy issues in the various present funding arrangements and propose some alternatives for consideration. These alternatives will include a consideration of the potential of voucher programs in partial funding of postsecondary education.

Virtually every study on this subject has suggested that it is vital to Canada's interests that a clear and effective policy concerning postsecondary education be developed. Increased investment in this sector, as well as in research and development, has been called for from the 1960s onwards. Yet in recent years, and certainly since the Saskatoon Forum on postsecondary education held in 1987, there has been no discernable progress in setting forth a postsecondary education policy framework which commands either enthusiasm or consensus. As we will see shortly, this is not a new state of affairs; nevertheless, its continuance is surely a cause for national concern as we enter the last decade of an increasingly turbulent century. Knowledge is indeed power; nations which desire to empower their citizens and corporate structures to meet their own and their neighbours' needs must surely take seriously how they fund the creation and sharing of knowledge.

2 The Evolving Canadian Postsecondary Education System

In the September 1864 draft of the British North America Act, universities, unlike public schools, were specifically excluded from provincial jurisdiction. However, the later Quebec session of the Confederation conference changed the earlier draft to place universities under provincial care. Like all other social policy functions, postsecondary education became one of the so-called "residual" functions of the provinces. In common with these functions, postsecondary education policy has frequently been the victim of the vicissitudes of federal-provincial relations, both in fiscal and programmatic terms. Following the uncertain rhythms of our political climate, the sector provides a fruitful arena for charges of "interference in provincial responsibilities," or "failure to allocate federal funding," punctuated by calls to the higher road of unified policies to undergird "the national stake in fostering a highly competent, productive work force," or "excellence in scientific research and the arts."

How did Canada's postsecondary education system evolve into its current hybrid state, constantly seeking a national voice, but subject finally to the fiscal policies and realities of individual provinces?

Prior to Confederation, virtually all provinces either already had universities or provided for one or more institutions for postsecondary education shortly after attaining provincial status. Some were "land-grant" universities, such as the Universities of Manitoba and British Columbia, which were intended to be self-sufficient through use or sale of very large land grants given to them by the federal government. Others were private institutions, either affiliated with a church, such as Laval University, or "secular," as in the case of Toronto's University College.

In the early years following Confederation, the national government was occupied with the physical task of making the country possible; building the infrastructure of rails, roadways, and communications vital to national existence. Apart from founding the Royal Military College and making land grants to some western universities, the federal government had no significant involvement in postsecondary education until the end of World War I. Until the end of World War II, provincial government involvement with universities was largely limited to capital grants. Operating support to universities was rarely provided by either government.

The federal government began its long involvement in postsecondary education through support of technical and vocational training as a postwar employment adjustment measure. The 1919 Technical Education Act and its successor legislation, including the Technical and Vocational Training Assistance Act (1960) lasted until 1967, when it was replaced with the more inclusive

4 The Funding of Postsecondary Education in Canada

provisions under Part II of the Federal-Provincial Fiscal Relations Act, covering federal funding of most aspects of postsecondary education.

A decade after this first federal initiative in funding postsecondary education, Canada moved into the Depression of the "dirty thirties." Policies aimed at colonizing a vast western territory gave way to policies supporting destitute regions of the country. To provide a comprehensive vision for the future social policy agenda, the Royal Commission on Dominion-Provincial Relations (the Rowell-Sirois Commission) was established in August 1937. The Commission, which reported in 1940, envisioned health care, unemployment insurance, and family supports, among other progressive policies. However, it did not refer to postsecondary education as an area for federal involvement.

By 1944, the government was facing the challenge of converting the country to a peacetime industrial economy and creatively employing men and women of the armed forces, the younger members of which had never had peacetime jobs. Under the 1945 Veterans' Rehabilitation Act, the federal government broadened its role to include support of university education, as well as its previous support of the technical and vocational sector. Per-capita grants of \$150 were made to universities and colleges for each enrolled veteran. These grants fuelled a rapid expansion of the postsecondary sector in the period 1946-50. During this same era, the provinces also began to increase their role in providing operating grants to universities.

Following the recommendation of the Royal Commission on National Development in Arts, Sciences, and Letters (the Massey Commission) in 1951, federal grants on behalf of veterans were replaced with per-capita grants to universities, justified as supporting national requirements for trained manpower.

The provinces objected to this direct federal funding role, and hence the federal government used the Association of Universities and Colleges of Canada (AUCC) as an intermediary body to distribute funding. However, Quebec continued its objections to federal funding in what it saw as an area of provincial jurisdiction. Accordingly, the direct per-capita grants to Quebec were ended by a Canada-Quebec agreement in 1960. Under this agreement, tax room was ceded to Quebec, which used the resulting income to provide grants to its universities. By 1966, grants to the remaining nine provinces had reached \$5 per capita.

In 1966, faced with the tremendous pressure that the "baby boomers" were placing on university enrollment, the federal government proposed a system of increased tax transfers to the provinces, along with cash grants. These measures were adopted under Part II of the Federal-Provincial Fiscal Arrangements Act (FPFAA). This Act, combining the funding of technical and university

education, more than tripled federal funding and established the system of 50/50 cost sharing of defined postsecondary education programs which was to last until 1977-78.

In 1966-67, the federal government also renegotiated the framework for technical and vocational training, including a major program of capital grants to enable construction of new community colleges. The operation of these colleges was directly supported by a 50/50 sharing of expenditures, augmented by agreements between the provinces and what is now the Canada Employment and Immigration Commission (CEIC) for the purchase of "seats" in community colleges and vocational schools. Thus a higher proportion of the operating costs of community and vocational colleges was supported with federal grants and purchase of service than was the case for universities.

In Quebec, the "quiet revolution" had a major impact upon the provincial education system, leading, among other things, to the emergence of the system of Collèges d'enseignement général et professionnel (Cegep), which are under the direct administration of the provincial government. These colleges received the same level of federal support as did community colleges in other provinces.

In the first five years of this agreement, costs rose rapidly, exceeding 20 per cent per year. This rapid cost escalation led the federal government to negotiate a ceiling on overall annual increases of 15 per cent from 1972 until replacement of this cost-shared program in 1977-78.

Summary

The years from 1945 to 1976 saw rapid expansion of Canada's higher education system, the costs of which were funded by Canada's growth during a period of relative prosperity and economic expansion. The constitutional sensibilities of provinces were addressed through the use of a flexible and changing mix of tax transfers, cost sharing, and equalization arrangements, with the federal government using its constitutional spending powers to enable the provinces to have the fiscal capacity they required to provide services.

The Scope of Canada's Present Postsecondary Education System

Students, Teachers, and Costs

Canada's modern postsecondary education system is complex, with the non-university portion of the system varying widely from province to province. There are many shared arrangements among provinces and the federal

government to provide specialized, costly education and training programs. For example, the University of Saskatchewan provides a veterinary medicine program for the Prairie provinces, while the Coast Guard College in Nova Scotia provides training for its recruits under federal auspices.

One of the more difficult issues in regard to the financing of university operation in Canada arises from the role and extent of research activities, and the manner in which these activities are funded. The Canadian Association of University Business Officials (CAUBO) publishes an annual compendium of statistics which are derived from a carefully worked out "source and application" approach to universities' revenues and expenditures. Five major expenditure groupings are used, including one entitled *general operating* and another called *sponsored research*. In further breaking down the *general operating* category, the function *instruction and nonsponsored research* appears. However, no allocation between these two functions is made. Hence the officials recognize the problem that many university activities involve significant nonsponsored research, but they have no means to allocate an actual expenditure, since no data are collected allowing such an allocation to take place.

The Association of Universities and Colleges of Canada also publishes data in regard to the extent of university contributions to the cost of research, which show, for example, that in 1989-90, universities contributed some 40 per cent of the total cost or \$780 million to identifiable research activities from their operating budget.

The Technical Committee on Canadian Education Statistics (a post-secondary working group of officials of provinces, the Council of Ministers of Education [CMEC], and Statistics Canada) reached an estimate similar to that of the AUCC. The latter exercise was patterned on American data regarding percentage allocation of university faculty time to research, since no comparable Canadian data were available. However, these exercises are clearly preliminary, and little confidence should be placed in the degree to which their results reflect *total unfunded research expenditures* within the normal operations of universities. What appears more likely is that their results reflect the degree to which universities contribute to the costs of externally funded research from within the universities' operating budgets.

The question of the total amount of university research *expenditures*, as opposed to government and other externally *funded* research is clearly difficult to ascertain. Estelle James [1986] makes the case that most studies (and certainly the data cited in this paper) fail to attribute faculty time spent on research, and hence significantly understate research expenditures, and overstate the true per-student costs and academic operating costs of the university. She suggests that as much as 50 per cent of faculty time is expended on research activity, a total far higher than the modest amounts cited in the above

Canadian studies. Allocations of expenditures following such an approach would dramatically change current thinking about the extent of research and development in universities.

This is a very important issue from the perspective of public policy in regard to the financing of postsecondary education from a number of perspectives. First, the current available statistics would seem to significantly understate actual Canadian research and development activities, since they miss the nonsponsored costs of such research by university staff and graduate students. Second, by overstating the costs of the teaching activities, the true proportion of overall costs provided by tuition fees is obscured, and the costs per student are also overstated. The overstatement of operating costs resulting from university contributions to funded research is in the order of 10 per cent of total university income, while tuition fees amount to about 11 per cent. What this indicates is that if sponsored research were in fact *fully* funded, tuition fees could drop to almost zero. Alternatively, recovery of the full costs of funded research would allow universities to recover some financial ground lost in recent years, as shown in the data provided by the AUCC. Even this significant adjustment does not take into account the nonfunded research. However, undertaking such a major reassessment of university accounting practice is well beyond the scope of this paper. Hence the data that follow do not take the above discussion into account and follow traditional accounting and reporting approaches of Statistics Canada. The author is indebted to Steven Lawton for suggesting that this critical matter receive at least cursory attention in this paper.

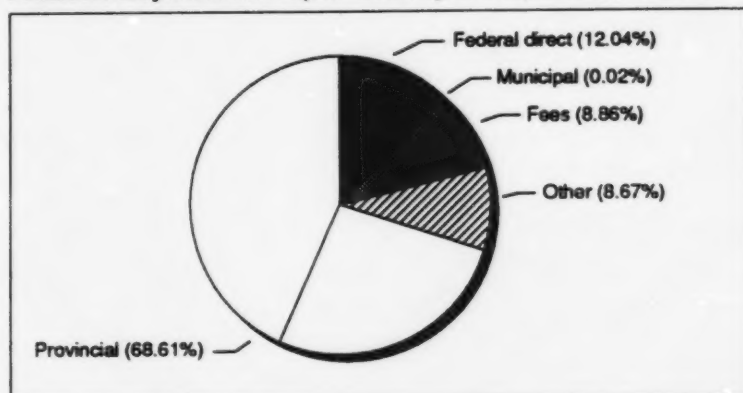
Excluding direct expenditures on research, Canadians spent \$12.5 billion on postsecondary education in 1989-90, with the direct sources of funding shown in Chart 2-1. When the transfers under the EPF legislation are taken into account, this picture changes substantially.

Chart 2-2 shows the source of funding in two different ways. The left-hand pie displays the source of funds from a provincial perspective. In this case, the tax points which were transferred to the provinces in 1977-78 are assumed to be provincial revenue, and hence only the federal budgetary (cash) transfers are shown as coming from the federal sector, in addition to direct federal expenditures. In the right-hand pie, the federal perspective is shown, in which the tax revenues are deemed to continue to represent federal funding, even though they are levied by the provinces.

Because of the varying nature and strength of provincial economies, the provinces devote quite different proportions of their gross provincial product (GPP) to postsecondary education. Provinces from Quebec eastward require upwards of 2 per cent of their GPP to fund postsecondary education, while those from Ontario westward require much less, averaging 1.3 per cent

Chart 2-1

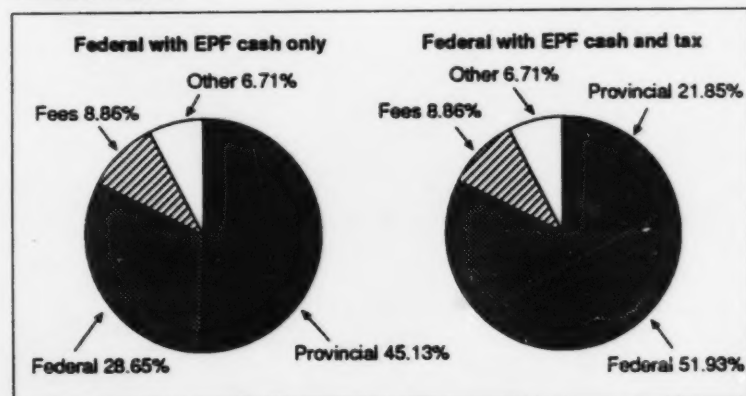
Postsecondary education expenditures by source, Canada, 1985-86



Source: Based on data from Statistics Canada.

Chart 2-2

Nonresearch expenditures on postsecondary education by source, Canada, 1985-86

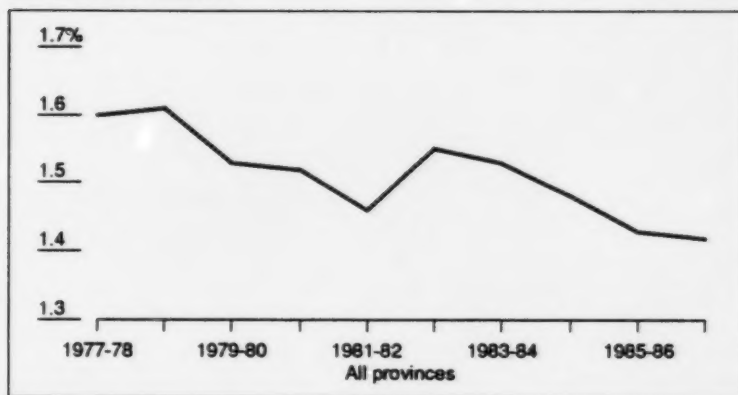


Source: Based on data from Secretary of State and Finance Canada.

(unweighted). Ontario required only 1.1 per cent of its large GPP to support its postsecondary system. Given the relative similarity of provincial per-capita expenditures on postsecondary education (PSE), it is clear the fiscal capacities of provinces vary greatly, in spite of federal equalization payments.

Chart 2-3

Provincial support to higher education in Canada as a percentage of GDP, 1977-78-1985-86



Source: Based on data from Statistics Canada.

It is also worth noting that on a national level, expenditures on postsecondary education as a proportion of gross domestic product (GDP) have fallen from about 1.6 per cent to just over 1.4 per cent in the period 1977-78-1985-86 (Chart 2-3). At current GDP levels, this represents about \$1 billion in expenditures which have been reallocated to other purposes within the domestic Canadian economy. In part at least, it can be argued that provinces, facing federal cutbacks in transfer payments which began in 1982 with the removal of the Revenue Guarantee from the Established Program Financing (EPF) transitional arrangements, have prioritized health care over postsecondary education. Tables 2-2 and 2-3 at the end of this chapter show provincial expenditures on postsecondary education and health as a proportion of gross provincial product. The pattern of reallocation noted above becomes clear when these tables are examined.

Canada has one of the world's highest rates of participation in postsecondary education. In 1987, 1.6 million Canadians were enrolled on some basis in postsecondary education. Over 63,000 full-time staff and many additional part-time staff provided instruction. In that year, 540,770 Canadian students attended university full time, a 31-per-cent increase in 10 years, while part-time enrollment grew by 41 per cent to 308,273. In addition to degree programs, universities provided certificate and other programs, with over 310,000 course enrollments during 1987-88. Universities employed over 40,000 full-time teaching staff in 1987, an increase of 11 per cent during the past decade.

According to the 1989 Report of the Secretary of State to Parliament, the Vocational Training and Community College sector (Cegep in Quebec) had over 315,000 full-time and 175,000 part-time students and employed slightly more than 23,000 full-time instructors.

Provinces spend a very similar proportion of their budgets on postsecondary education, with 8 of 10 provinces spending between 3 and 4 per cent, and only Prince Edward Island and Nova Scotia slightly exceeding 4 per cent.

Operating expenditures per university student were nearly \$9,500 in 1987-88, with costs lower in the larger provinces, and higher in the smaller provinces, reaching nearly \$13,000 per full-time student in Prince Edward Island. However, these operating costs do not include the nontuition costs for each student attending university. A recent discussion paper on student aid noted that the average direct annual cost to students, excluding tuition, was about \$6,000 in 1987-88, indicating that the total direct and indirect costs per university student exceeded \$15,500 in that year, with about 45 per cent of these costs being borne by the student, and most of the remainder carried through the public sector [Canada 1989]. The paper also notes that the range of costs varies widely, particularly in the case of those students who must, or who choose to, attend universities away from their homes.

Fiscal information on the community college/vocational training sector is less readily available. However, operating costs per full-time student would appear to average \$9,500 nationally, and average tuition fees are much lower in this sector. Quebec does not charge tuition fees in the Cegep system. Frequently, when a student attends college through a seat purchased by the CEIC, there are no tuition fees. However, the living costs associated with attending community colleges are very similar to those for university, so it would appear that the proportion of the total costs which is carried by students is similar to that in the university sector.

In overall terms, the proportion of GDP which nations allocate to education is remarkably similar. International comparisons on postsecondary expenditures should be made with considerable caution, because the structural arrangements for postsecondary education vary greatly among developed nations. Typically, nations other than the United States and Canada send a much smaller proportion of their secondary graduates to university, while a larger proportion pursue technical or vocational training streams. Young people are directed towards their career sector at an earlier age, sometimes through quite rigid streaming mechanisms at the secondary school level.

According to the most recent data available, of 13 nations with similar, developed economies, only one, the Netherlands, invests greater proportion of its GDP in postsecondary education than does Canada (Table 2-1).

Table 2-1

Higher education/total education expenditures as a percentage of GDP in OECD countries¹

United States	1.2/4.8	(1987)
Japan	0.6/4.4	(1988)
Germany	0.6/4.0	(1987)
Ireland	1.2/6.2	(1987)
Norway	0.9/5.7	(1988)
Netherlands	2.1/6.9	(1987)
New Zealand	1.0/6.1	(1988)
Canada	2.0/6.8	(1988)
Italy	0.8/5.0	(1986)
United Kingdom	1.0/4.8	(1987)
Austria	1.1/5.5	(1988)
Switzerland	1.0/5.0	(1988)
Australia	1.6/5.1	(1987)
OECD average	0.94	

¹ The year in parentheses indicates the latest data available.

Source: Organisation for Economic Co-operation and Development, "Educational expenditure, costs and financing: an overview of trends" (provisional title), to be published in 1992.

Many of the costs of technical training in other countries are absorbed either directly through the industrial sector, where a good deal of the training takes place, or through lower wage levels to those in training.

In summary, the basically similar nature of developed economies and their patterns of total spending suggest that while structural arrangements may well differ from country to country, the net result is a similar amount of educational activity.

3 Forging a National Postsecondary Education Policy

Constitutional Dilemma – Economic Necessity

In the decade from 1970 to 1980, the world suffered economic shocks from two unprecedented, rapid oil-price increases. National priorities required that new attention be paid to the energy sector, and that substantial national resources be committed to assist Canadians to weather the international energy storms of 1974 and 1978. As continuing major increases in health and

Table 2-2
Provincial contributions to postsecondary education as a percentage of GPP, 1977-78-1986-87

	Canada	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Territories
1977/78	1.6	2.1	1.9	2.0	1.6	2.3	1.4	1.6	1.4	1.3	1.1	0.2
1978/79	1.6	2.0	1.9	2.0	1.7	2.3	1.4	1.3	1.4	1.2	1.2	0.2
1979/80	1.5	1.9	1.8	1.9	1.6	2.3	1.3	1.3	1.3	1.1	1.2	0.2
1980/81	1.5	2.0	1.8	2.0	1.9	2.3	1.3	1.2	1.2	1.1	1.2	0.2
1981/82	1.5	2.0	1.6	2.0	1.8	2.3	1.2	1.3	1.2	1.2	1.2	0.2
1982/83	1.5	2.1	1.7	1.8	1.9	2.3	1.3	1.4	1.2	1.3	1.2	0.2
1983/84	1.5	2.0	1.7	1.7	1.7	2.2	1.3	1.4	1.3	1.3	1.2	0.5
1984/85	1.5	1.8	1.7	1.8	1.7	2.2	1.2	1.5	1.3	1.4	1.0	0.5
1985/86	1.4	1.8	1.9	1.6	1.6	2.2	1.2	1.3	1.3	1.3	0.9	0.6
1986/87	1.4	1.9	2.0	1.7	1.6	2.1	1.1	1.3	1.4	1.5	1.0	0.8

Table 2-3

Provincial contributions to health as a percentage of GPP, 1977-78-1985-86

	Canada	New- foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Territories
1977/78	5.2	7.9	8.6	7.0	7.0	6.4	4.8	6.1	5.2	3.7	4.8	6.5
1978/79	5.2	8.2	8.5	6.8	6.9	6.5	4.7	5.8	4.9	3.7	4.9	6.9
1979/80	5.1	7.9	8.2	7.0	6.4	6.5	4.5	5.7	5.0	3.7	4.8	6.2
1980/81	5.3	8.5	8.9	7.8	8.2	6.6	4.7	6.0	5.1	3.7	5.4	5.5
1981/82	5.5	9.8	8.6	8.3	8.4	6.7	4.8	6.2	5.1	4.0	5.5	6.8
1982/83	6.1	9.5	9.8	8.3	9.3	7.3	5.4	6.8	6.1	4.9	6.0	8.0
1983/84	6.2	9.6	9.6	7.9	8.5	7.4	5.5	7.0	6.5	5.1	6.1	7.1
1984/85	6.0	9.0	9.1	7.9	8.2	7.1	5.3	6.8	6.3	4.8	6.0	6.5
1985/86	5.9	9.2	9.1	7.5	7.8	7.0	5.2	6.6	6.4	4.9	5.9	7.4

higher education costs combined with inflation fuelled by the energy crisis, the federal ability to raise revenues from tax bases which had just been newly indexed against inflation was severely strained.

In a parallel development, the federal-provincial bureaucracies administering the cost-sharing agreements were growing increasingly complex. Every new service required negotiation and agreement prior to introduction. A series of detailed definitions of services acceptable for cost sharing slowly emerged, and bureaucracies expanded at both levels of government to cope with the burden of lengthy negotiations. As a result of both bureaucratic and energy-related fiscal pressures, the federal government proposed a new set of funding arrangements in 1975-76. These arrangements sought five goals:

- The federal government should continue to pay a substantial share of program costs.
- Federal payments should be calculated independently of provincial program expenditures.
- There should be greater equality in per-capita terms among the provinces with regard to the amount of federal funds they receive under the program.
- The arrangements for these major programs should be placed on a more permanent footing.
- There should be provision for continuing federal participation with the provinces in the consideration and development of policies of national significance in the fields of health and postsecondary education.

As an additional carrot to entice some provinces into these arrangements, Canada agreed to allow the provinces to increase their individual and corporate income tax levels, while the federal government reduced its level accordingly. The taxpayer experienced no change, while the constitutional responsibility of the provinces to provide health and education services was better supported by their new tax capacity. Use of the direct federal spending power was now less necessary.

The proposed funding framework, which has become known as the Established Programs Financing Arrangements (EPF), provided that federal payments to provinces were to be linked to the performance of the economy as a whole, but paid on an equal per-capita basis, adjusted annually for population change. In order to smooth out annual changes in the gross national product (GNP), a three-year moving average of the changes in GNP was used to calculate provincial per-capita payments. In overall terms, the original formula

meant that the federal government would continue to contribute the same proportion of GNP year after year to these services, adjusted for population growth, and paid on an equal per-capita basis across the country.

Another way of viewing this assumption would be to say that the federal government viewed the postsecondary education system as a *mature*, fully developed system. For postsecondary education, conceivably this could be true, apart from the woeful Canadian research and development funding record. However, considering that the final key element in the Medicare system, insured doctors' services, was only added in the period 1971-74, it seems extremely optimistic to assume that by 1975-76, *both* systems had fully matured. Given that the Health Price Index typically rises at a rate in excess of the Consumer Price Index, and that Medicare was still a young system in 1977-78, fixing federal contributions to a constant proportion of the GNP was almost guaranteed to lead to extreme fiscal pressure on the provinces.

In order to maintain some ability to withhold funding should provinces break commitments in the health-care field, the federal government internally allocated its transfers in a fixed proportion to health and to higher education. This allocation was based upon the national *average* spending proportions in the base year in each sector. That is, the federal notional allocation did not represent the real, actual allocation by any province, but a composite average. In the base year, the allocation was 67.9 per cent to health and 32.1 per cent to higher education. However, the federal government has since repeatedly used this fictional allocation to comment, usually unfavourably, on individual province's actual spending decisions, while ignoring the fact that no *actual* province ever established such a spending ratio in the first place.

By shifting to a block-funding approach, the federal government gave up its ability to control where provinces spent the funds which were transferred for health and higher education. The Prime Minister had assured his provincial counterparts that the new arrangements were block funds; that is, they were unconditional. All parties no doubt believed that the funds would indeed be allocated in total to the intended services, but the bilateral controls inherent in cost sharing had been abandoned.

The Fiscal Crisis of the 1980s - The Formula Begins to Erode

With the rapid rise in inflation and the second oil-price shock of 1979-80, the federal deficit rose dramatically. In 1982-83, a seemingly minor but very important change was made in the EPF funding formula. Under the 1977-78 agreement, the formula escalator was applied *only* to the cash portion of the transfer. The tax points which were transferred were not included. Whether the revenues resulting from those tax points grew at a slower or faster rate

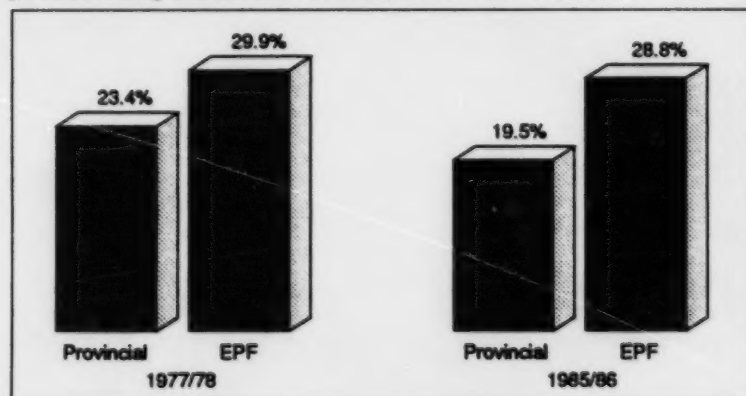
than the overall formula requirement was not an issue. During the recession of 1981, income tax revenues dropped sharply, and the provinces complained that they were being victimized by this aspect of the 1977-78 formula. Hence, in the 1982-83 version, the indexing formula was applied to the total (cash+tax) formula transfer. In other words, the federal budgetary cash transfer became a residual amount, calculated after the revenues from the tax points were estimated. This seemingly advantageous change was to come back to haunt all the provinces following the formula cuts from 1985 and onwards.

In 1983-84 and 1984-85 the federal government implemented the "6 and 5" anti-inflation program. After an initial proposal to apply controls to the entire EPF payment, agreement was reached to apply the cap only to the postsecondary portion of the program.

At the same time, many provinces were facing major deficits and had begun to reallocate EPF revenue from higher education to health care (Charts 3-1 and 3-2). Chart 3-1 shows that, while the federal notional EPF allocation to postsecondary education (right-hand bar) dropped only about 1 per cent between 1977-78 and 1985-86, provincial allocation of EPF funds to postsecondary education (left-hand bar) dropped by almost 4 per cent. Chart 3-2 shows that the reverse happened with health expenditures. Provinces increased the proportion of EPF allocated to health care more sharply than the federal notional allocation.

Chart 3-1

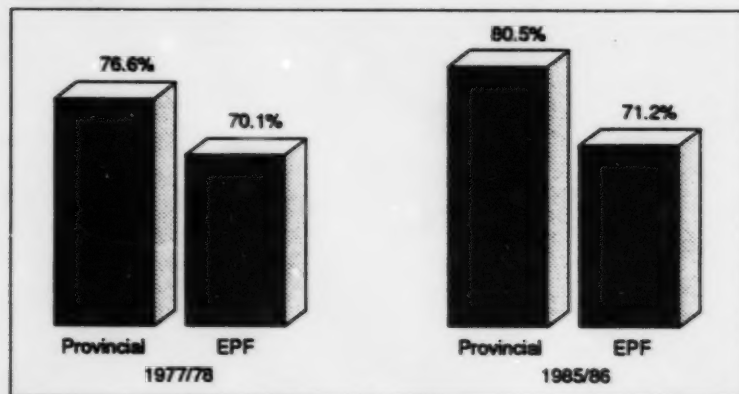
Provincial spending versus EPF allocation to postsecondary education in Canada, 1977-78 and 1985-86



SOURCE: Based on data from Finance Canada and Statistics Canada.

Chart 3-2

Provincial spending versus EPF allocation to health care in Canada, 1977-78 and 1985-86



Source: Based on data from Finance Canada and Statistics Canada.

In some provinces, funding of postsecondary education was frozen, or even slightly reduced, while health-care funding increased at a rate in excess of federal transfer growth. In overall terms, the proportion of GNP allocated to higher education has been reduced in the decade 1977-87, as was noted in Chapter 2. While the reduction may appear slight, it represents over \$1 billion in actual spending, or about 8 per cent of the total spent in this sector in 1989-90.

What is perhaps more interesting is that the overall provincial expenditures on both systems, expressed in terms of Canada's GDP, have increased only slightly in the past decade. The apparent increase in the early 1980s was in fact a result of the recession shrinking the GDP, rather than any major increase in health or higher education expenditures (Chart 3-3). When data from the later 1980s become available, they will likely show that, as a proportion of our national wealth, spending on both of these systems has been quite stable.

Thus the balance of funding between health and postsecondary education has changed, but when viewed as a block grant, the increased federal allocations were more than matched by provincial increased spending. However, this reallocation process gave rise to accusations that provinces were not spending federal monies in the manner "intended" by the legislation. The reality in the EPF Act is that there is no requirement to spend in any given sector, or in any given proportion. The Nielsen Commission [1986] concluded

Chart 3-3

Provincial support to higher education and health in Canada as a percentage of GDP, 1977-78-1986-87



Source: Based on data from Statistics Canada and Health and Welfare Canada.

that there was no evidence of "misspending" of funds, but did note the reallocation pattern. This report also makes some pertinent observations about the nature of the funding controversies afflicting postsecondary education: "the objectives (of the EPF arrangements) are not specified clearly. . . . There is also the possibility of conflict of increasing 'provincial fiscal flexibility' and the objective of 'maintaining national standards.'"

After reminding readers that the federal government did not establish any standards with respect to transfers for postsecondary education, the report continues:

Groups on all sides of the argument have tried to fill this apparent gap by imputing standards or intent which are not expressed anywhere in the legislation . . . [this] arrangement not only permits, it actually encourages each order of government to blame the other for any apparent deficiency in the level of funding of postsecondary education.

Nevertheless, two federal initiatives were taken to address the perceived problem of provincial allocations of the EPF funds. The first, and by far the most controversial, was the 1984 Canada Health Act which enshrined in law a federal monitoring role, by which the federal government was entitled to ensure that there were no barriers of accessibility erected in the form of user fees or like charges for Medicare. The penalty for non-compliance was withholding of EPF payments. Several provinces who were briefly in non-

compliance had funds withheld, but these funds were restored when the provinces came into compliance with the Act.

In the postsecondary sector, Parliament enacted a law which requires the Secretary of State to report annually on the funding of postsecondary education, and in particular on the provincial allocation of funds to the PSE sector. This report is tabled in Parliament every April and serves as a lightning rod for comment on provincial spending decisions.

Thus two federal committees have found no evidence for alleged diversion of EPF funds away from the health and higher education sectors when viewed as a whole. However, provincial governments, facing rapid increases in the costs of and demands for health services, and perceiving that they could hold postsecondary education spending increases to a lower level, changed the pattern of expenditures between these two sectors.

Changing the Structure of the Formula

Immediately following the 1984 election, a major initiative was launched to examine every facet of government expenditure. At the same time, the government began planning its assault on the deficit. Unlike previous attempts to get the deficit under control, the new government took a structural approach, amending formulae in a number of areas, and undertaking sweeping changes in the taxation system, particularly income taxes, where tax deductions were changed to tax credits.

The new attack on the deficit was based upon the idea that if major structural or legislative changes were made, these changes would return savings year after year, without further costly political actions being required. For example, annual partial de-indexation of personal exemptions/credits exposes a greater proportion of annual income to taxation. The claw-back of the old-age pension saves little in the first year, but savings mount in each successive year, as the effective level at which the claw-back begins gets lower, due to inflation. The scale of compounded savings can be very large indeed. For example, the two-year imposition of the 6 and 5 program of 1983-84 now produces annual reductions from previously planned funding levels of EPF payments in excess of \$400 million per year.

The first structural change in the formula came in 1985, with the announcement that EPF entitlements would no longer grow with the economy as a whole, but would be held to 2 per cent *below* economic growth. With this change, the federal government served notice that over time, it was going to reduce the share of the GNP allocated to these services from federal sources. If services were to continue to be funded in line with economic growth, the

provinces would have to provide funding *in excess of nominal growth* to make up for the federal shortfall.

For poorer provinces, this change posed a formidable challenge. For example, the province of Newfoundland stated that poorer provinces faced the choices of privatization, including premiums, user fees and extra-billing, expenditure cuts, deficit financing or tax increases, finding that "no options are particularly attractive." Quebec examined the structural effect of the formula cut and the trends in its funding of health and higher education, noting in its 1987-88 budget that the cut would, over time, end federal cash funding to Medicare and higher education. With the 1989-90 budget, payments were to be reduced by a further 1 per cent of GNP growth, for a total reduction of 3 per cent. In the 1990-91 budget, all payments were frozen on a per-capita basis to their 1989-90 levels.

The Structural Changes and Federal Spending

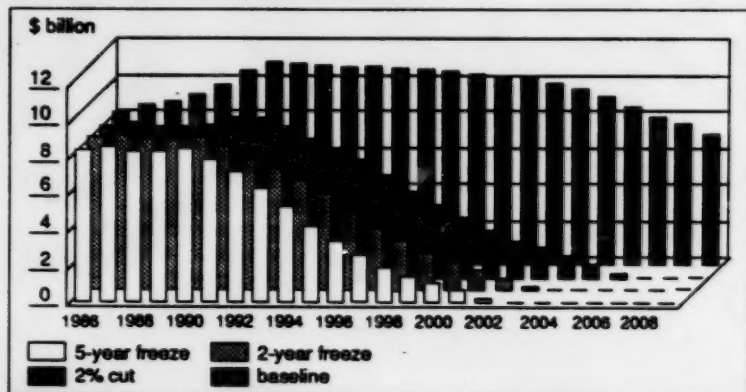
Until 1991, most observers outside of Quebec missed the fact that as a result of the federal cuts to the funding formula, federal budgetary allocations for health and higher education will ultimately end. In order to understand why this will happen, it is necessary to know how the annual per-capita EPF entitlements are calculated.

The first step is to determine what the per-capita transfer should be, based on the three-year average of GNP growth, *less 3 per cent*. Next, the actual revenue raised by the equalized tax points is calculated and *deducted* from the entitlement. The federal budget provides an appropriation to make up the difference in cash. The vital point is that *calculation of the cash payment is the last step in the formula*.

If the tax points generate a higher proportion of the formula increase year over year than the formula requires, then the cash transfer is reduced to fit the formula. If, as has been the case since 1989-90, the tax points generate more new revenue than the total new revenue required by the formula, then the federal cash payment will fall on an annual basis. If this trend continues over time, the cash payment will disappear altogether. So, over the long term, it is possible that the provincially levied tax points can make up the entire "federal" commitment. Meanwhile, the federal *budget requirement* for health and higher education will have fallen to zero from its current \$9-billion level. All funding will then be coming from provincial sources. The federal government will have ended its direct funding role, while being able to maintain the accounting fiction that it is still funding health and education through "tax points" allocated in 1977-78, which have no bearing whatsoever on federal budgetary planning.

Chart 3-4

Federal budget expenditures for health and higher education,
Canada (all provinces), 1985-86-2008-09



Source: Projections based on federal data.

With the 1991-92 five-year freeze in EPF per-capita payments, the rate of federal withdrawal from all budgetary funding for health and higher education was sharply escalated.

For Canada as a whole, using cautious assumptions, the last federal funding for health and higher education will be in the year 2003-04, only 12 years from now (Chart 3-4). This calculation assumes that the freeze is lifted after five years and uses federal estimates for economic growth.

By the end of 1994-95, the total funding reduction from the previously planned levels based upon the 1977-78 formula will reach the staggering sum of \$32 billion. This figure represents growth in the economy which has been withdrawn by the federal government from Canada's health and higher education systems since the imposition of the first withholding in 1983-84. Of this sum, about \$3.5 billion results from the 6 and 5 anti-inflation program, and \$28.5 billion from the structural cuts which began in 1986-87. Over the entire period until the ending of federal EPF cash payments to the provinces, almost \$150 billion will be saved by the four cuts in funding since 1985-86. This figure also approximately represents the new funding that provinces would have to allocate, if funding to postsecondary education and health were to keep pace with the estimated growth in the economy.

It would appear that poorer provinces will face great difficulties in maintaining their commitment to funding postsecondary education in the light of

the perceived priority of their health-care system. When coupled with the pending shortage of university staff in the later 1990s, this may well trigger an exodus of teachers from poorer provinces. Excellent students may then seek a better academic experience in richer areas. In universities, the capacity to attract significant research funding depends upon the experience and excellence of the teaching staff. As the richer provinces gain better academic programs, research funding will surely follow, further impoverishing universities in poorer areas.

If we accept the argument that Canada's ability to compete in a global marketplace is dependent in part on higher education and research activity, then a creative resolution of the current federal-provincial fiscal debate is surely a matter of urgent national priority.

A number of reports have commented on the funding issues described above. The Task Force on Program Review (the Nielsen Report [1986]) already referred to, with considerable prophetic insight, suggested that if nothing were done to alter the EPF arrangements in place in 1984, "the federal government may alter the escalators for postsecondary transfers again." Indeed, this was done in 1985, 1988, and 1990. The report then proposed three future policy options, each containing some suboptions.

The first option was a status quo approach, with adjustments to reduce unclarity and resulting friction between governments and the postsecondary sector. The second alternative suggested separation of the health and PSE components of the EPF transfer, with the PSE component being located in a new, separate act. The third option was to terminate the federal direct funding of PSE operating costs (though not of research) altogether. None of the three major policy alternatives suggested by that report have been implemented, or even pursued.

An even earlier report, that of the 1981 Parliamentary Task Force on Federal-Provincial Fiscal Arrangements (the Breau Report), made some of the same observations and reached similar conclusions. It is noteworthy that both reports suggested that the best way forward lay in separation of the health and PSE components of federal funding. The Breau Report noted that the federal insistence on a similar split in the federal allocation for health and PSE (67.9 per cent health and 32.1 per cent PSE) did not reflect the reality of any province's actual expenditures, and did particular violence to Quebec which allocated 35 per cent to PSE and to the Maritimes, which allocated only 25 per cent to PSE in the base year 1975-76.

The Task Force is concerned that this background be understood, and that provincial governments not be unfairly criticized for not doing what would be clearly irresponsible and irrelevant to attempt: namely to establish in each province targets

of 50:50 matching that had earlier prevailed only for national totals, if at all. At the same time, we are also concerned that funding levels for these programs be maintained and that adequate program standards be assured. It can be argued that some provinces took the opportunity offered by introduction of EPF to practice spending restraint with an enthusiasm that threatens the maintenance of adequate standards.

As in the later Nielsen Report, the Breau Task Force recommended a split in the health and PSE components of the EPF arrangements, along with a range of more prescriptive suggestions as to how this might be accomplished.

The 1984 Report, *Ontario Universities, Options and Futures* (the Bovey Commission), made a wide range of policy suggestions aimed at all aspects of university education in Ontario. Among the funding recommendations were suggestions to fix (effectively to separate) the EPF components at the then current spending ratio in each province. That is, the total provincial expenditures on health and PSE would be used to prorate the federal contribution and to fix a ratio for such contributions in the future. Increases in federal funding for research, including funding of its indirect costs, and the development of a national income-contingent loan plan to cover 100 per cent of tuition fees were recommended. The Commission also called for the creation of a mandated Standing Committee on University Education and Research in Canada, to provide a forum for reconciling and coordinating federal and provincial priorities relating to universities.

The much quoted federal study by A. W. Johnson [1984], entitled *Giving Greater Point and Purpose to the Federal Financing of Post-Secondary Education and Research in Canada*, proposed forcing the provinces to follow federal increases in EPF by matching provincial increases to federal increases. Johnson also proposed redirecting some funding from the PSE portion of EPF into research and concurred that indirect costs of research should be covered in federal research grants.

One of the key components in Johnson's arguments was the apparent decline in *per-capita real student expenditures* over the period he studied. The implication was that this decline was undesirable and likely harmful to the quality of education. Johnson also claimed that without national objectives for postsecondary education, there could be no real purpose in continued federal funding. While at first this may appear to be a reasonable assertion, no program or quality standards apply in any of the provincially funded services supported through the much larger health transfers or the equalization payments. In other words, it is not self-evident that insistence on national program standards, other than of what might be termed a process nature (accessibility, portability, rightfulness, and so on), necessarily serves systems or services very well.

The 1985 *Report* of the Royal Commission on the Economic Union and Development Prospects of Canada (the Macdonald Commission) also suggested separating the health and PSE funding arrangements and tying federal increases to concomitant provincial increases in support, as did the Johnson Report. Federal contributions would be frozen until they were matched by provincial spending (a return to 50/50 funding), and the resulting short-term surplus federal funding would be diverted into research. The Commission also suggested that a portion of the present PSE funding be changed into direct student vouchers for tuition at a university of their choice. Measures to improve access for low-income and minority groups were proposed, through amendments to the Canada Student Loans Act, possibly enhanced by income-contingent (income tax based) loan repayment provisions.

In summary, all of these reports suggest that a key element in resolving current funding issues is the separation of the health and PSE components of the EPF arrangements. Beyond this one point, opinions diverge; on this they are united. The question is why this central recommendation has not been even seriously considered, let alone adopted? One possible answer is that all of the above-noted reports start from only one perspective, namely that of the federal government. As is the case with most bilateral systems, the needs and aspirations of both parties must form the basis for creative evolution of the partnership.

4 Future Funding of Postsecondary Education

Options and Choices

In assessing the options for a long-term policy framework through which to fund postsecondary education in Canada, the following issues should be considered.

- Insofar as possible, the short-term fiscal constraints facing the federal and some provincial governments must not be allowed to dictate the long-term shape of the options chosen.
- The diverse constitutional and practical realities facing the provinces must be taken into account.
- Process-oriented standards (access, affordability, and so on) must be distinguished from content-oriented ones (quality of education, skill levels of graduates).
- Provision for the emergence of the widest possible mix of flexible and creative arrangements among and between the postsecondary, business, government, and not-for-profit sectors must be fostered.

- The distinctly different nature of skill-based, community college, Cegep, and non-university postsecondary education systems may require separate consideration from that of the university sector.

- So-called "obvious truths," particularly about such matters as access and academic standards, ought not to be the basis for policy development unless they are indeed obvious and supported by at least a modicum of evidence.

What then are the major policy components which might realistically be considered? Can these components be grouped into feasible policy packages? Can such policy packages be accommodated and implemented within the evolving constitutional realities of the Canadian federation?

Constitutional and Practical Realities

Viewed in a broad perspective, the history of federal-provincial relations is characterized by increasing provincial capacity and autonomy and decreasing federal direction and control. While this has not been a smooth evolution, it has resulted in capable provincial administrations which increasingly aspire to their full constitutional roles. Countering this trend has been concern for national standards in major services, such as health, education, and other vital areas, and a continuing desire on the part of poorer provinces that the federal government retain sufficient power to ensure their fiscal capacity.

The evolution of Canada's constitutional framework has gained considerable speed since 1969. At present, it seems unlikely that the initiative for policy evolution in provincial areas of jurisdiction such as education will shift back to the federal government. Hence it may well be that a series of bilateral, or perhaps even regional, discussions may emerge to allow for limited federal-provincial cooperation on specific issues. This may lead, for example, to further use of regional development agreements, such as the Atlantic Development Fund or the Western Diversification Initiative.

Differences among provinces have led to the development of quite different approaches to postsecondary education across Canada. The Maritime provinces have coordinated program development on a regional basis, allowing for a degree of specialization, thus better meeting these three small provinces' needs. Quebec has followed a low-tuition policy (though this is changing at present) and has developed its unique Cegep system along with a range of quite diverse universities. Ontario has a large number of institutions of all sorts and has perhaps the least direct government involvement with universities and community colleges. Until 1993, when separate boards will assume full operating responsibility, Manitoba continues to administer its three community colleges whose staff are now civil servants. Manitoba's four

universities vary greatly in size, course offerings, and location. Saskatchewan has two universities, with an integrated, government-operated multicampus community college system. Alberta has four universities, including a unique campus in Athabasca, offering distance education but having almost no resident students. British Columbia has several universities as well as a system of community colleges offering distance education programs in many communities. Recently, British Columbia began to offer the first and second year of university through selected community colleges.

In spite of these regional and institutional differences, the quality of postsecondary education across Canada appears to be quite similar. Canada does not have any richly endowed universities such as Harvard and Yale in the United States, or Oxford and Cambridge in England. For whatever reasons, Canada's few originally private universities have never attracted the level of private individual or corporate financial support necessary to allow Canadian parallels to British and American private universities to develop. In the light of the required scale of such endowments, it is unlikely that this will happen in the foreseeable future.

Given this picture of regional diversity, is it conceivable that provinces or the federal government would seek a return to some variation of cost sharing, as contemplated by the Macdonald Commission or the Johnson Report? The implication of such funding is detailed agreement on what is being funded. Clearly, it is in the interest of one party to maximize the definition, and of the other to minimize it, hence offering fertile ground for bureaucratic and political activity. Present realities and historical experience suggest that cost sharing is a concept that served Canada well in the past, but is unlikely to return as an organizing principle for federal-provincial fiscal arrangements.

Universities, Community Colleges, and Cegeps – Different Funding Policy Requirements?

On a national level, 23 per cent of high-school graduates attend community colleges/Cegeps, while 29 per cent attend university. The numbers attending private postsecondary institutions cannot be ascertained. Community colleges/Cegeps are obviously a major provider of postsecondary education in Canada today. How different are they from universities? Insofar as they are different, do they require separate funding arrangements?

In the broadest terms, Canada lacks a policy of skill training and development, though this appears to be less true in Quebec than in the remainder of Canada. The older trades have apprenticeship streams which take a very long time to complete and essentially are closed craft guilds with limited enrollments. Many newer, vital skills are outside this traditional structure and

lack definition as discreet occupations. Training in many of these skills requires access to very costly and rapidly changing technology, which is frequently far beyond the capital budgets of community colleges. Much of the contracted training now being done under the Canadian Jobs Strategy Program is employer specific, and does not result in any credential which is recognized beyond that work setting.

Typically, the core costs of community colleges/Cegeps are supported through the EPF arrangements, but in addition, Canada buys training places for clients of the Canada Employment and Immigration system at the full cost of each space. While direct purchases have been reduced by some 40 per cent during the past four years, many colleges have developed a contract capacity to allow them to receive funding under the Canadian Jobs Strategy (CJS), and at least in part replace the lost direct federal funding. In some provinces, apprenticeship programs are delivered through community colleges, while in others, separate trade schools exist.

Thus, while community colleges are provincial institutions, they derive a higher overall level of support through the combination of federal grants and purchases of service than do universities. Tuition fees in community colleges vary significantly; there are no tuition fees at present for Cegeps in Quebec.

Canada faces some shortages of skilled tradespeople, as evidenced by the continued recruitment of employees from various countries. At the same time, there are waiting lists for as long as two years in some trades at some community colleges. Without repeating much of what was written in the Dodge Report, it is clear that Canada faces some very major problems in skill training. Among these problems are:

- shortages in a number of skill areas;
- extreme fragmentation in training approaches;
- lengthy waiting lists for entry to training;
- absence of credentials for newer skill areas;
- lack of portability of credentials;
- lack of articulation from vocational high-school training to community college or trades training; and
- requirement for costly capital equipment which rapidly becomes out-dated.

It may well be that the entire non-university sector requires rethinking, perhaps through a national commission, in which the federal government, provinces, and territories are equal partners. However, whatever the future policy arrangements might be, there appears to be no inherent reason why the federal-provincial funding mechanisms chosen for this sector need be different from those proposed for the remainder of postsecondary education. This is particularly true in light of the role which community colleges/Cegeps play as quasi-universities, delivering the equivalent of one or two years of undergraduate programs in several regions of the country.

Given the above brief discussion of the constitutional and practical realities of postsecondary education, what funding alternatives might the federal government consider adopting in regard to postsecondary education? Four alternatives will be examined; the use of vouchers, development of strategic partnerships, increased involvement in research funding, and options in regard to the present EPF arrangements.

A Voucher Program

A number of commentators, including the Reform Party of Canada, have called on the federal government to shift some or all of its current budgetary expenditures of about \$2.4 billion (1991-92) to student vouchers for postsecondary education. Currently, these transfers amount to under \$2,400 per student. Such vouchers might be tenable only in Canada or at any recognized university or postsecondary institution. Vouchers presumably would be politically attractive to the federal government, which has frequently (and justifiably) felt that it bore all provincial criticism on funding matters, but did not receive credit from students or the system for what it did provide. This issue has been examined recently in some detail by David Stager [1989] in a report entitled *Direct-to-Student Funding for Post-Secondary Education*.

As proposed by the Macdonald Commission and others, including the Reform Party, vouchers are not seen as new money, but would be provided through the redirection of existing EPF funding. In the case of the Macdonald Commission, funding for the program would come from the savings which would be realized from the Commission's proposed federal freeze of PSE payments. If this freeze were maintained, the savings would mount annually, allowing the voucher program to be broadened. In this regard, it is important to note that, while the federal government has indeed frozen all EPF payments until 1994-95, it is fully utilizing the savings of over \$42 billion during this period as general revenues offsetting the deficit.

The twin purposes claimed by voucher advocates are to enhance student choice and to encourage institutions to be more responsive to student and market demands. As proposed, vouchers would do nothing to ensure either

national standards, or a federal voice in such standards, because they would sharply reduce funding flowing to provinces from the federal government. In fact, if all current federal funds were allocated to vouchers as some propose, the federal voice would be silenced altogether. The implication is that by increasing the effectiveness of market mechanisms in postsecondary education, the national interest would somehow be better served in the long run.

For the purposes of this discussion, we have chosen to examine the effects of a voucher valued at \$2,400. This level represents 100 per cent of the present federal cash transfer for postsecondary education under the existing EPF arrangements. First, let us examine the likely impact of a voucher of \$2,400 on a student's ability to choose a postsecondary education.

Choice in this case has at least three major components:

- ability (financial and practical) of the buyer to afford to exercise differing choices;
- availability of a range of choices within the marketplace; and
- adequate knowledge to make an informed choice among the options.

Ability to Afford Differing Choices

According to the Canada Student Loan Program, the average cost to students of attending full-time postsecondary programs, including tuition, was in excess of \$7,700 in 1989-90. The per-student cost to institutions (excluding tuition fees) of providing programs is very difficult to ascertain, because there are no data which convert part-time enrollments to equivalent full-time enrollments. A rough range can be calculated by comparing the cost per full-time student, which was \$12,297 in 1988-89, and the cost per total student (full-time + part-time students) which was \$7,692. Hence it is fair to assume that the average cost per full-time student is likely in excess of \$9,000 with arts programs costing somewhat less, and professional and technical programs significantly more. Enrollment in professional faculties can easily result in tuition costs which are double the average.

Thus the total public and private costs per year of postsecondary education begin at around \$16,600 and can easily exceed \$30,000 in faculties such as dentistry and medicine. If a student travels very far from home or is forced to live in a costly metropolitan area, these costs can be higher still. These costs do not include any indirect or opportunity costs, which all commentators agree exceed the direct costs. In our proposed example, the costs of tuition would rise from their present level by the additional voucher amount of \$2,400, at least on average. This is because the universities will, on average, lose this amount now coming via EPF payments flowing in the form of provincial

support. What effects might this have on a student's choice of postsecondary institution?

From a financial perspective, an extra \$2,400 which will go to the institution in the form of higher tuition will do nothing to expand the student's ability to afford a postsecondary education. Except in the case of those who already have the financial means to travel for their postsecondary education, or who live in areas served by more than one university which offers subjects which they want to study, the voucher will have little practical effect. It is therefore hard to see how modest vouchers will enhance the effectiveness of the postsecondary marketplace, particularly for students from outside central Canada.

Students in Montreal, Quebec City, Toronto, Halifax, Winnipeg, Vancouver, and Ottawa already have a choice of two or more institutions which they can attend. In most cases, however, only the arts faculties of these universities are duplicated; apart from faculties of education, specialized and professional faculties tend to exist in only one university in each of the above cities. Of course, many faculties have limited enrollment, and because vouchers represent only a fraction of the costs of service, and are not new money, they would do nothing to allow expansion of such faculties. Hence admission criteria would likely continue to be used to limit enrollment.

If indeed vouchers succeeded in stimulating specialization in the offerings of some universities, this could easily have the perverse effect of reducing choices to consumers in areas where there is only one institution, or in which there is only one of a particular faculty. Readers are no doubt aware that this is the case in most Canadian cities with universities. To the extent that such specialization occurs, it will reduce choices available to consumers who do not have the practical and/or financial ability to travel. This includes many part-time students, virtually all mature students, and poorer students. In fact, over 85 per cent of Canadian postsecondary students attend institutions in their home province.

It would appear that vouchers as presently proposed will do nothing directly to increase consumers' ability to choose among programs. Insofar as vouchers encourage institutions to improve choices, vouchers could have either a perverse or a beneficial effect, depending on the resulting fit between desired options and institutional responses.

Availability of an Increased Range of Choices within the Educational Marketplace

Since no suggestion has been made that vouchers be funded through new funding allocations, they would represent reallocation of existing resources,

perhaps forcing some competition. This would actually reduce the choices for lower income students in those markets served by only one institution or faculty. It is conceivable that, in major centres with several institutions, a voucher plan might have some market effects and might stimulate evolution of some specialty campuses. However, for this to happen, new resources, either in the form of reductions of current wages or operating costs, or resulting from closure of marginal faculties, would have to become available. It is inconceivable that, for example, science offerings could be strengthened without spending new resources on equipment and library holdings. With sharply constrained resources already a way of university life, such new capacity can only come from current expenditure savings.

One of the most difficult issues in voucher proposals is the fact that the marginal costs of enrollment vary widely, depending upon the faculty and courses being offered. At the present time, both tuition and public subsidies to universities to a great extent are averaged across these differing costs. The introduction of a voucher system which actually had the impacts intended by voucher proponents would force universities to make explicit all marginal costs, in order that they could know what additional tuition fees to charge, or where they might be able to reduce program offerings at the greatest savings. In effect, the present direct cost of knowledge production would become a powerful determinant of what was being offered, unless the voucher followed very closely the actual marginal cost per student of each course or at least, each faculty. It can fairly be argued that knowledge production is not well served by a preoccupation only with short-term costs and benefits.

If such specialization took place in cities where total offerings were not reduced, but were relocated to specialty units, there could be short-term benefits to consumers, with no loss of overall choice. However, these specialized offerings would quickly begin to behave as monopolies, since the costs for others in that community to enter or to re-enter a specialty market and compete effectively would be excessively high. In other, usually smaller, centres where specialization occurred, an actual loss of choice would result, with the same ultimate end of a monopoly developing in specialized areas.

It is important to note that, for the most part, postsecondary education is still primarily a seller's market. There are more who wish to enroll in many arts, science, and most professional faculties than there are spaces. Before there were likely to be market effects from vouchers, it would seem necessary to change the underlying market forces of supply and demand to be more in balance.

Thus it is possible that vouchers funded from within the existing PSE system could improve allocative (external) efficiency of a market, but only where such a market actually exists. For many Canadians in most rural and urban

areas, no real market in PSE exists, because particular courses of study are available only in one institution or faculty in a given area.

*Adequate Knowledge to Make an Informed Choice among the Options:
What Effect Would Vouchers Have on a Student's Ability to Choose a
Course of Study?*

Vouchers are proposed as a means of speeding up institutional responses to market demand. Students aware of employment opportunities will demand new mixes of courses, and institutions will respond. But how well are students equipped to choose among institutions and course offerings?

Students first enrolling in university have been influenced primarily by parents and teachers, and perhaps by the experience of friends or siblings. As many commentators have pointed out, there is virtually no data available about the actual outcomes for graduates of most PSE programs to enable informed choice. Some professional faculties do have statistics on job placement or percentages moving on to graduate work, but these are not widely circulated at the pre-enrollment level.

University students in larger universities often change their major and/or faculty during their university career, as they actually learn better what interests them. However, for many if not most, the financial and practical realities are such that these choices are limited, and they have only one choice of institution and/or faculty.

Informed choice of faculties and courses likely begins during the latter stages of undergraduate work and is in earnest at the graduate level. At this level, faculties do compete for the best students now, in effect using a voucher-like approach of fellowships, grants, teaching posts, and research facilities. In other words, incentive and voucher-like mechanisms already exist at the graduate level, but are stimulated primarily by academic and scholarly interests. While the economic competition for graduate students cannot be denied, the academic world knows that poor quality graduates and graduate work will harm, not help the university and academic careers. Hence the primary mechanism at work is academic merit, made operational by funding somewhat more under the control of students. It is hard to see how such a mechanism could operate at the undergraduate enrollment level.

Technical and Operational Considerations

On a very practical level, it is simply not possible, or perhaps even desirable for many faculties to expand and contract like an accordion in response

to market demands. It takes a number of years, and significant investment, to develop strong faculties. Insofar as universities lead society in knowledge production, it is likely not desirable that they wait for demands for new professions such as computer specialists to emerge before they begin to respond. On the sunset side of the ledger, the issues are as difficult. What knowledge, once accumulated, should not be further developed and maintained, whether or not it has a market value? Artists of many sorts exist in more or less chronic underemployment. Does this mean we should train fewer artists? What is the value of a degree in philosophy?

Voucher systems, while attractive in principle from a classical economic perspective, offer relatively little potential in a market which is as full of structural imperfections as is Canada's undergraduate postsecondary education system. In a market in which tuition is unregulated, the first effect of a universal voucher system would likely be to drive down per-student expenditures in generalist universities as they sought to compete for enrollment on price grounds. This could mean some combination of lower staff salaries, an end to collective bargaining, or larger classes. Given the possible faculty shortage in Canadian universities within the next five to ten years, it is difficult to see how such a plan would be beneficial to the quality of higher education in Canada. Should a voucher plan be proposed, it would have to take into account the dislocation effects as students seek to attend the larger, better-funded institutions. Some smaller postsecondary centres would be likely crowded out, decreasing student access in less densely populated areas, which already perceive themselves to be disadvantaged in comparison to central Canada.

Provinces, particularly smaller ones, are acutely aware of the economic importance of universities and colleges. They know that access to a provincial postsecondary system is vital, both economically and politically. They are also increasingly aware of the synergy between universities and the private sector. Hence poorer provinces would likely strongly oppose policy mechanisms which might have the effect of reducing the attractiveness of their provincial postsecondary system. Smaller provinces are already aware of their competitive disadvantage and would view vouchers as likely to increase that disadvantage through competition for students and faculty with larger and wealthier institutions.

In his very useful review of the issue of vouchers, David Stager [1989] outlines operational issues which would have to be addressed if a federally supported voucher system were to be developed in Canada. The major issues identified by Stager are outlined below:

Base Value — What would the value be? Would it be the same across Canada? Would an aggregate level of vouchers be available for each province? How would overall costs be contained if quotas were not set?

Eligibility Requirements — Would institutions control eligibility? Would that mean any private or public postsecondary institution? Would accreditation be required? If quotas were established, would that require national high-school examinations? Could the voucher be used at foreign universities?

Differentiated Values — Would the voucher differ across regions, institutional types, or program type? Would it be related to tuition-fee levels?

Means Test — Would the voucher be a universal or selective benefit based upon family income or assets? How would a differentiated voucher fit into the student loan program?

Provincial Control — What level of the current provincial control on tuition-fee structures and postsecondary programs should be maintained in the face of federal direct funding?

Federal Regulations — What role would the federal regulatory capacity play if the system did not respond as expected to the impact of vouchers?

Administration and Integration with Student Aid — What increases in administration would be required to make a voucher system work smoothly? What federal-provincial cooperation would be required to mesh the student aid and voucher programs? Would the existing agreements whereby Canada Student Aid is provincially administered remain in place?

Part-Time Students — Bearing in mind that there are about 500,000 part-time students, how would a voucher system work for them?

Summary

Historically, markets have great difficulty evaluating the production of new knowledge or its transfer to successive generations. How, in advance, can one compute the likely value of pure research in mathematics, and thus decide on what to pay and what to charge for the related educational production function? How is a faculty to arrive at the value, in advance, of a teacher of constitutional law or human ecology? Given the rapid rate at which knowledge is changing, vouchers run the risk of imposing the past judgment of a relatively poorly informed market on a system which essentially is not very amenable to market judgment in the first place. Given that no nation in the world has done field research on even a modest experiment with a voucher system, and that even the strongest proponents do not agree on the specific characteristics of a voucher program, it would seem perilous for Canada to embark on such a scheme.

***Education-Industry-Government Partnerships:
Stimulating Interaction***

Earlier in this paper, it was suggested that an examination of our larger universities would reveal a large number of special arrangements and agreements with a range of business, government, and not-for-profit organizations. Often these alliances are strategic, because they bring to bear the best of academic and practical skills on real issues. The problem is that there are few structured methods of supporting such arrangements or of evaluating them. Commentators such as Fraser Mustard and others have noted the difficulty of obtaining support for multidisciplinary research, let alone for consortia composed of non-university and university groups. Thus a second possible role for the federal government in the funding of postsecondary education would be in fostering and at least initially funding a number of major partnerships in areas which are strategic to Canada's economic future.

Quebec has developed at least 16 such initiatives which link the postsecondary sector, particularly at the Cegep level, with industry and government in strategic partnerships. These range from a centre to provide information on computer-assisted production technology to small businesses, to Cegep-based centres on robotics, forestry, metallurgy, and sea fishing. These centres resemble closely European strategic partnerships of government, industry, and education.

An interesting American example of such cooperation comes from Harvard University, whose Kennedy School of Government has a Centre for Strategic Computing. Initially, funds came from the federal government, major corporations, and fees for services provided by the Centre. The Centre frankly brokers relationships between governments and industry and stimulates research and exchange of technology through conferences and other means. While the Centre is fairly young, it appears to be making a major impact on the strategic application of computer and telecommunications technology to government. Obviously, Harvard has the means to bear the initial costs of such a centre; few Canadian universities are so fortunate. But Harvard does not continue its subsidies; the Centre must make it on its own after the first few years. In Canada, the initial support may have to come from research and development grants; the potential payoff in partnerships and collaboration is surely worth the risk. The networks of Centres of Excellence, which have been federally supported, are a step in the right direction, but they do not explicitly require the active participation of business and industry in the work of the centres.

If we are concerned to foster practical and fruitful relationships among postsecondary institutions, business, industry, and the nonprofit sector, some form of support for the start-up and soft costs of such initiatives is necessary.

In the longer term, centres should be evaluated on their ability to deliver concrete benefits and to sustain their operations over time.

Access, Standards of Scholarship, and Research Funding

Access

Canada has chosen to enable a very large proportion of its secondary school graduates to seek higher education. The tools of this policy have included relatively low tuition, and a flexible student aid and loan program, aided by relatively high levels of unemployment, especially among young workers. An average of 53.2 per cent of our secondary school graduates proceed directly to postsecondary education, ranging from a high of 64.6 per cent in Alberta to a low of 33.7 per cent in Saskatchewan. In addition to receiving a majority of recent graduates, institutions typically offer mature student status to older students who may not have completed high school, and special access and support programs to limited numbers of members of various minority groups. While percentages attending various types of institutions vary widely across the country, the overall participation rates would suggest that there are few structural barriers to enrollment.

In commenting on the relatively lower representation of students from poor families, the 1987 Report of the Standing Committee of the Senate on National Finance observed that: "The effects of lower-income family background on post-secondary attendance are often felt long before graduation from high school is a prospect."

A number of researchers have examined the effect of low tuition on post-secondary enrollment, concluding that such policies at present represent a reverse subsidy from average taxpayers to children of higher income families. Benjamin Levin [1990] concludes that access for lower income students must be assured through targeted programs which include not only financial, but also personal support.

The Senate Report concludes: "Student aid programs will only have a marginal effect on participation by children from lower-income families. In order to increase their participation, programs would have to be targeted to helping them much earlier in their educational careers."

A corollary of this argument is that it may be appropriate to set a target level of tuition fees as a proportion of overall costs of providing a specific course of instruction, and then to adjust fees to keep pace with changes in the

costs of programs. Student aid loan limits and criteria then also need to keep in step with the changing levels of tuition fees.

At the same time, society ought not to lose sight of the substantial opportunity cost borne by students taking postsecondary education. At the average industrial wage, a student typically forgoes in excess of \$100,000 in lifetime earnings during four years of undergraduate studies. This loss of earnings takes place at the beginning of his or her working life, when pension contributions and savings have their most powerful long-term effect. Therefore, any move to significantly increase tuition fees should be modest and gradual. While society as a whole may benefit economically from the aggregate activity of students who seek postsecondary education, individual students may or may not benefit, depending upon overall market conditions and on their actual employment. Some significant level of public subsidy may in fact be required to induce students to both postpone consumption and to risk possible low rates of return on their investment.

One continuing concern in regard to student loans is their method of repayment and the cost of defaults to the government. At the present time, the loans become payable shortly after graduation and are repaid as is any commercial loan. Defaults are charged to government. Critics have pointed out that the ability of graduates to repay loans varies greatly in relation to employment status and type of employment. Thus proposals have been made to make repayment contingent upon income level. This would mean, for example, that those who were not employed would not be required to make loan payments while unemployed, while higher income graduates might pay back their loans over a shorter period of time, as a percentage of net income. These proposals have an intuitive appeal, but require careful thought before implementation. Would the total student loan fund become self-financing, thereby reducing the role and exposure of government? At present, defaults are charged to government, rather than pooled and prorated through interest rates or fees to other lenders. Would interest continue to mount during times of unemployment, whenever these times occurred? Would interest rates float or be fixed at graduation? Australia is launched on one variant of this "income-contingent repayment program," thus offering a ready opportunity for research into the benefits and pitfalls of this more flexible approach to paying back student loans.

In conclusion, it would seem that there is no pressing need to seek to increase the access of the majority of Canadians to higher education. Targeted access programs are appropriate, but must take into account the fact that the goal of postsecondary attendance may in fact have been set aside even before a student entered high school.

Standards of Scholarship

Canada's very broad commitment to access to postsecondary education makes discussion of academic standards in higher education extremely difficult, both conceptually and in practical terms. In the first place, there are no required national or regional examinations of skill levels, at least in part because the skills transferred in a postsecondary education are so diverse as to make any standard measurement impractical. The level of specialization is often so great that the only practical arbiters of quality are specialists themselves. Hence the traditional university mechanisms for quality assessment are based upon peer review and collegial examination of graduate students.

Criticism of postsecondary graduates is frequently aimed at those from professional or technically oriented faculties, whom employers feel have insufficient skill or knowledge in particular areas. It is important that institutions provide channels for such feedback and take seriously the marketable skills of their graduates. This concern can be legitimately pursued through the accreditation process at both the faculty and individual level as well. While such mechanisms may not satisfy all critics, they appear to be the only methods which are feasible.

At the same time, there is a welcome new emphasis on the quality of teaching at the undergraduate level. The suggestions contained in a recent report of Stuart Smith that universities should pay much more attention to their teaching role, as well as projects focusing on effective teaching can do much to improve the actual classroom experience. Student evaluations of courses and professors are increasingly common. However, while the quality of classroom teaching processes can be improved, it is unlikely that there will ever be a commanding consensus on the means of externally assessing the content of undergraduate education.

Attempts to make a positive impact on academic content must then be based upon a proxy which can be seen to have an indirect, but potent impact on student achievement. Such a proxy is available; it is the companion arm to university teaching, namely, research. Research funding policy offers a third potential area for a continued federal role in postsecondary education relating both to Canada's acknowledged need to improve its support for university-based research, and to the impact that excellent research can have on academic programs.

Research Funding - A Strategy for Excellence

One of the common criticisms of Canada's universities is that they do not have many world-class researchers or research centres. Research is clearly

one area in which the marketplace does play a major role. Excellent researchers need excellent facilities, support staff, and a climate which fosters academic enquiry, not the endless political pursuit of short-term research grants. Unfortunately, Canada ranks close to the bottom of research and development effort in the major industrial nations, despite repeated promises of many governments to address this critical issue. If there is one strategic investment which the federal government could make, it would be finally to fulfill its many promises to raise Canada's university-based research capacity, including providing funding for indirect costs. Fraser Mustard, in a striking condemnation of current granting policy of not funding full indirect research costs, noted: "The more successful our institutions become (at research), the more they have to penalize their education budget. . . ."

Douglas Wright, President of the University of Waterloo, stated that some research universities are reaching the point where they can no longer accept new research grants, because they cannot afford the overhead costs. As was noted in Chapter 2, universities already contribute 40 per cent of the costs of *sponsored* research; they presumably contribute 100 per cent of the costs of *nonsponsored* research. All such contributions are implicit charges against their instructional and operating budgets. Furthermore, it would appear that both the AUCC and the CMEC Technical Committee referred to in Chapter 2 have carefully addressed the issue of the costs to universities for sponsored research. A first step in resolving the research funding question would be to set a target of ensuring that "sponsored" research is indeed fully sponsored, by raising granting council funding by the approximately \$780 million indicated as the 1989-90 shortfall in such research funding.

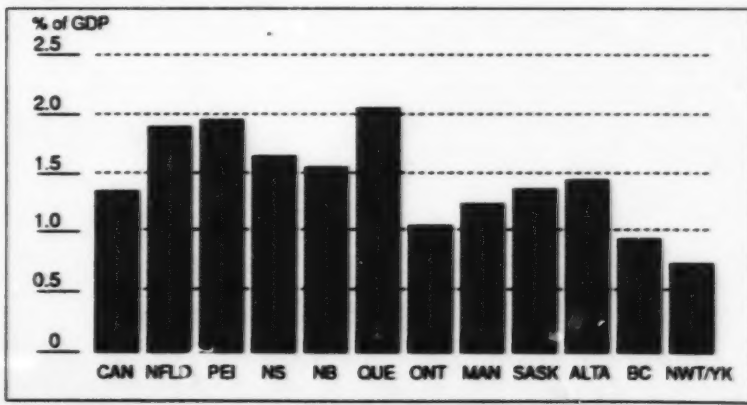
Increasing the level of research and development funding to universities for direct and indirect costs would help keep the good scholars we now have, would aid in attracting new ones, and would allow more Canadian graduate students to pursue preparation for their careers in Canada. Excellent research leads to stronger academic faculties, and stronger faculties attract stronger students, including international students. A number of universities have carefully examined the economics of attracting such students, even without differential tuition fees, concluding that they offer positive short- and long-term economic benefits to Canada.

In summary, the issues of research quality, academic standards, and access are interactive if somewhat elusive. Ultimately, it would seem that standards are best left in the hands of our scholarly community, where they traditionally reside, while access must be assured through targeted, government supported programs. The best quality assurance program for universities will take the form of adequate support for scholarly research, which provides the academic environment in which high standards are best supported.

Short-Term Fiscal Constraints – Federal EPF Funding of Postsecondary Education

Two elements in the current EPF arrangements block any serious discussion of change. The first concerns the notional split between health and higher education. The "split" (67.9 health/32.1 PSE, amended slightly by the effect of the 6 and 5 anti-inflation program) is at the heart of provincial resistance to further change in the EPF arrangements. As successive federal reports confirm, this split does not, and never did, reflect provincial spending reality, even in the base year of 1975-76, let alone 14 years later. Hence for the federal government and federal studies to comment, usually unfavourably, upon provincial PSE spending on the basis of this spurious ratio is to start an exercise in futility. This is especially the case when any parallel discussion in regard to health-care funding is ignored.

Differing provincial realities have dictated the evolution of varied PSE systems, demanding in turn differing provincial expenditure levels. Furthermore, in spite of equalization payments, major differences remain in provincial fiscal capacity, as was shown by the differing proportions of gross provincial product allocated to PSE (Chart 4-1). To assert that a fixed ratio of per-capita spending on PSE should be maintained everywhere in the country is, as the Breau Task Force said in 1981, "irresponsible and irrelevant." To cite an extreme case, Quebec's low tuition policy, which is surely an area for rightful provincial decision, makes that province's overall PSE per-capita expenditures higher than those of neighbouring Ontario. In fact, in the base year

Chart 4-1**Provincial spending on postsecondary education as a proportion of GPP, 1986-87**

for EPF, Quebec spent 35 per cent of the total EPF base calculation on postsecondary education. Are Quebec's universities as a whole better than Ontario's as a result? The only answer we can make is that they are differently funded, by policy.

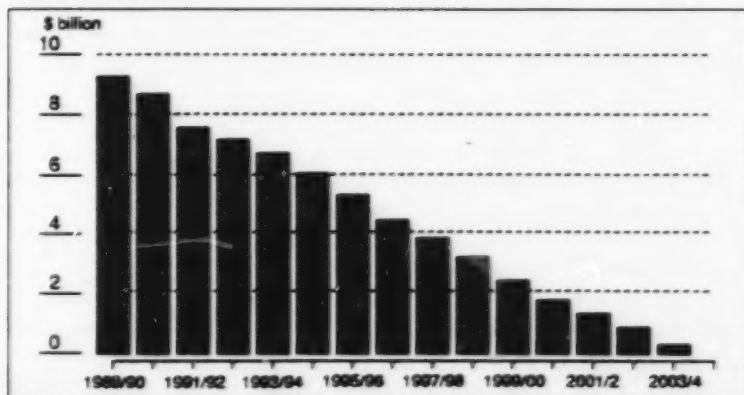
The second problem with the EPF arrangements is the federal practice of including the tax transfer as a portion of the continuing federal funding of health and PSE. While historically this reflects the point in time when federal taxes were reduced and provincial levels increased, the transfer was clearly intended to be permanent, not a loan of tax room. The tax base so transferred is no longer a federal asset to be shown on a balance sheet.

The practical difficulty with asserting that the transfer remains part of the federal "contribution" can be seen in the effect of the 3-per-cent reduction in the EPF escalator, and in the population-adjusted freeze in entitlements announced in the 1990-91 budget. As can be seen in Chart 4-2, under present law, federal budgetary contributions to health and higher education will cease altogether by about 2004, and will end in Quebec by 1995-96, only four years from now. What will remain will be equalized tax points which were transferred in 1977-78, and nothing else.

There will be no federal ability to withhold cash payments for provincial non-compliance with present or future legislation. In effect, the debate on PSE funding will have ended by default, with the federal withdrawal from

Chart 4-2

Federal budget expenditures for health and higher education,
1989-90-2004-05



Source: Projections based on federal data.

the field. The key recommendation of Nielsen, Breau, Johnson, and others will have been achieved, but hardly in the manner they foresaw.

When this happens, the value of the provincial tax points will again begin to grow at a natural rate, rather than being reduced by the effect of the GNP escalator. This may explain why some provincial treasurers have been relatively muted in their criticism of the federal cuts.

The effect of this withdrawal of funding on federal expenditure requirements is extremely large. The present budgetary commitment of \$8.3 billion shown in the 1990-91 estimates will shrink to zero over the next 14 years, instead of growing in line with the economy as would be expected with the original escalator. As was noted above, by 1995 alone, over \$42 billion will have been withdrawn through these structural adjustments to EPF. After 1995, the annual effect of the reductions escalates very rapidly, so that in the final year, savings of over \$16 billion (nominal \$) will accrue to the federal budget. Assuming that the systems being funded have average requirements for funding increases related to economic growth and inflation, it is clear that the federal withdrawal will transfer an enormous fiscal burden onto the provinces. Their differing fiscal capacities will almost certainly dictate that the poorer among them reduce sharply services which Canadians have understood to be essential to their health and development.

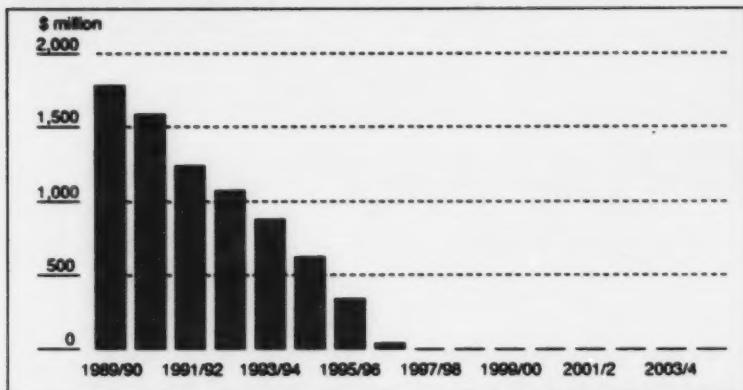
It appears that by the mid-1990s, the federal budgetary contribution to Quebec and Ontario will be so negligibly small that those provinces can afford to ignore their current, short-term problems, and simply await the day when their tax points again grow naturally, and the federal voice is stilled permanently. The federal government is not unaware of this pattern, so we must assume that it is, *de facto*, federal policy. Nor is the end of cash payments far off in the future. In federal-provincial time frames, the end of cash payments to the first province, Quebec, will occur about 1995-96 or, in other words, at the end of the five-year period covering fiscal agreements now under renegotiation, including Equalization.

The dramatic effects of this policy can be seen in the projected EPF cash payments to Quebec shown in Chart 4-3. Arguably, in the year in which there are no cash payments to one province, the force and effect of the Canada Health Act will end, as will any remaining federal leverage on the postsecondary education sector.

The advantage of this use of fiscal "*force majeure*" on the part of the federal government is that it simplifies the present funding picture and respects constitutional realities, neither of which are small achievements. The costs remain somewhat hidden, but surely include increased balkanization of the Canadian postsecondary education system. What options do we have to

Chart 4-3

Federal budget expenditures for health and higher education,
Quebec, 1989-90-2004-05



Source: Projections based on federal data.

address this fundamental shift in the funding arrangements for postsecondary education in Canada?

In seeking options for future fiscal arrangements covering postsecondary education, we must first ask why that system is structurally linked with the health system for funding purposes. An examination of provincial spending on health care in comparison with spending on higher education reveals two distinctly different expenditure patterns, as well as distinctly different systems. Health-care requirements are rising much more sharply than those of the higher education system. Furthermore, higher education has other sources of support, including fee, endowment, and research income. The health-care system serves almost 100 per cent of Canadians annually; the higher education system may benefit all Canadians indirectly, but it has served only about half of the graduates of grade 12, or 43 per cent of all Canadians who are 17 years of age or older. Only 27 per cent of Canadians over the age of 17 have attained a degree or certificate.

While both sectors share some serious limitations as market systems, the higher education system has more characteristics of a market system than does the health system. Purchasers of higher education generally have some degree of mobility to seek the alternatives offered by the market and have more ability to make an informed choice of alternative offerings, based upon some knowledge of the potential outcomes. Much more is known about the

rate of return on higher education, and it is possible to devise systems of funding which are based on future returns on investment.

It is true that, to an extent, both systems are interdependent. All of the skilled staff in the health-care system gained their expertise through the higher education system. Nevertheless, this is hardly a compelling reason to place them under one funding formula. In fact, none of the recent federal studies of higher education funding support a continuation of the present arrangements. Broadly speaking then, it would seem that it is desirable that these two systems be separated, and that funding arrangements appropriate to their differing characteristics be developed. Options for future funding fall into two broad categories: first, those in which the federal role is ended; and second, those in which the federal presence is maintained.

Stream A: Ending the Federal Role

Option 1 – Transfer of tax points representing the existing federal budgetary allocation.

At the present time, the EPF arrangements call for a freeze on federal transfers until the end of 1994-95, at which time the current formula governing annual EPF funding will again function. This formula calls for annual changes in provincial per-capita entitlements at the rate of the three-year average increase or decrease in the nominal (inflation/deflation included) GNP, minus 3 per cent. The formula contains a floor, a guarantee of no less than inflation, protecting transfers against times of low growth and high inflation.

The simplest proposal would be to end the federal transfers at an agreed upon time. The federal government would then transfer tax room to the provinces equivalent to the then existing level of federal budgetary (cash) transfers. Federal income taxes would decrease accordingly, and provincial taxes increase. At the 1989-90 estimated revenue levels, this would amount to the transfer of about 5 federal personal income tax points, assuming an average tax rate of 26 per cent. Of course, these tax points would then be subject to the provisions of the equalization arrangements, as is the case with all current provincial tax bases.

Advantages

- There is no need to separate the transfers for health and higher education, because the federal role is ended. Provincial income tax is simply a revenue source to provinces, which then allocate the resulting funds as they see fit.

- The constitutional realities are respected fully; the federal role in two areas which are clearly provincial responsibilities is ended.
- Provincial revenue streams would again begin to grow, reflecting the underlying growth in personal income, instead of being constrained by the current EPF formula which generates growth at a lower historic rate.
- Accountability for funding arrangements is clearly laid at the provincial level. The current blaming between levels of government is ended.

Disadvantages

- From a federal perspective, there is a loss of access to a revenue stream which is being generated through income from taxes which are levied by the provinces, but which "count" as part of the federal contribution, and actually reduce the federal budgetary cash requirements.
- Public reaction to the end of the federal role, at least in Medicare, and perhaps also in PSE, may be politically unacceptable.
- Poorer provinces may strongly resist the end of the federal role, even though this proposal would result in an enhanced revenue stream for the provinces.
- There would be a further exposure of provincial revenues to the annual cyclical fluctuations of income tax revenues. While these tax revenues are equalized, a general recession would see all provinces facing falling tax revenues, which would not be offset by federal budgetary transfers.
- From a social policy perspective, this option will virtually ensure emergence of two-tiered health-care systems, and even greater pressure to introduce more user-pay elements in postsecondary education. Poorer provinces, and/or those motivated by political beliefs, may introduce revenue measures which lead directly to co-insurance plans, user fees, and the like.

Option 2 - Impose the freeze only on the federal budgetary (cash) transfer and, following the end of the freeze in 1995, negotiate a tax transfer, as in the above case.

Advantages

- There would be some continued short-term gain to the federal government's fiscal situation, though not as great as with the present program of cutbacks.

- Provinces would gain the benefit of the full income stream that is being generated by their tax points, and the rate of transfer of the funding responsibility for health and higher education would be slowed somewhat. However, the end result would be the same as in Option 1.

Disadvantages

- The accountability and constitutional clarity provided by Option 1 are lost in the short run, although in the longer run, the results will be the same as in Option 1. When this happens, the benefits of accountability and constitutional clarity are the same for both options.

- The two systems being funded remain linked in the shorter term, thus offering a continuing series of opportunities for blaming behaviour from all sides.

- Because the provinces will have to wait for a further period of time before getting access to an unencumbered funding stream, both health and higher education systems in the poorer provinces in particular will face extreme fiscal pressure.

- There would be an exposure of provincial revenues to the cyclical fluctuations of income tax revenues. These fluctuations are now smoothed by the use of the three-year average GNP formula.

Option 3 – Maintain the present formula, leading to the end of federal funding gradually over the next decade, sharply constricting provincial revenues in the process.

Advantages

- The federal government forces a rapid transfer of responsibility for funding both health and higher education onto the provinces, thus saving some \$42 billion by 1994-95, and about four times that amount before the end of the century.

- The mechanism chosen is one based on obscurity and complexity; thus far, the federal government has been able to make the cuts without attracting much criticism.

Disadvantages

- Because of the magnitude of the shift of the federal fiscal burden to the provinces without a corresponding shift of resources, the poorer provinces

will almost certainly be forced to cut services or resort to sharply increased taxation levels. Ironically, the federal government is successfully using the funding diversion strategy, which it falsely accused the provinces of using in 1983-84.

- Almost certainly, Canada will see the reemergence of a two-tiered medical-care system, with co-insurance plans, user fees, and the sharply escalated administration costs of such measures, as well as major measures aimed at reducing expenditures and increasing tuition and other revenues to postsecondary education.

- Just as Canada's baby boomers hit middle and old age, the country will lose its universal health-care system. This will result in diversion of a great deal of seniors' private incomes away from consumption and investment and into health care.

Stream B: Maintaining a Federal Role

Option 1 – Maintain the EPF arrangements by reverting to the base escalator clause at the end of the announced freeze.

Advantages

- The federal role and voice in the funding of health care and higher education would be maintained.
- The Canada Health Act would continue to have voice and effect.
- Some federal leadership capacity in regard to funding new strategies aimed at increasing the overall effectiveness and equity of health and higher education would remain.

Disadvantages

- The federal government would lose most of its current access to the revenue stream generated by the transferred tax points, and hence lose the deficit reducing function of the current cuts.
- The present tensions in the funding formula would remain unresolved. The federal government would still claim the tax points as federal contributions to EPF; the artificial linking of health with higher education would remain, and the controversies generated by the federal notional split of the EPF payments into health and higher education components would remain.

- The fiscally induced incentives for provinces to reform the current costly elements of both health and higher education would be reduced.
- Accountability for adequacy in funding arrangements would be slightly clearer, as long as the federal government adhered to the basic formula. However, the constitutional issue of federal action in an area of provincial jurisdiction would remain.

Option 2 – Maintain the EPF arrangements, but limit the escalator to the cash portion of the transfer, ceding the tax points as provincial revenue.

The current cash per-capita payments are residual amounts, reflecting the revenues generated by the tax points. They reflect current differences in provincial fiscal capacity. Hence Ontario's cash per capita is much lower than Newfoundland's. This option would, in effect, freeze the current fiscal capacity differences into the base of the formula. While this would reflect present reality, it would not necessarily respond to future trends. Therefore, some adjustments might need to be made to ensure that the payments continued to reflect actual regional disparities as these change over time.

Advantages

- The revenue capacity of the provinces to support the programs would be maintained.
- The federal voice and role would be maintained and perhaps enhanced by the elimination of what provinces view as unwarranted interference in their fiscal affairs stemming from the tax points "ownership" issue.
- Because the federal role would be to maintain a fixed proportion of GNP as a contribution to both systems, some provincial incentive to restrain costs to a similar level of increase would be present.

Disadvantages

- The present problems regarding the split would remain, although the tax-point issue would have been resolved.
- The federal government would lose most of its current access to the revenue stream generated by the transferred tax points, and hence lose the deficit reducing function of the current cuts.
- Accountability for adequacy in funding arrangements would be slightly clearer, as long as the federal government adhered to the basic formula.

However, the constitutional issue of federal action in an area of provincial jurisdiction would remain.

Options 3 and 4 – Identical to Options 1 and 2, but with the programs split into health and postsecondary education components, using the present proportions spent on health and PSE by each province, under separate sections of the EPF arrangements.

The advantages and disadvantages of these two options would follow the pattern of those for Options 1 and 2. However, the issue of the split would be resolved.

There would be a potential disadvantage in that the differences in proportional spending between health and postsecondary education would require that the per-capita transfers for health would be different in each province. While this would reflect present reality, it might become a source of controversy in the future.

Summary

The structural arrangements which currently provide funding support for postsecondary education in Canada are at a critical juncture. If the present EPF arrangements remain in force, there will be no federal role in the funding of this system beyond student aid by about the year 2004; in Quebec, federal funding will end around 1995-96.

While the arguments in regard to the national interest are strong, we must ask whether the past arrangements have led to a satisfactory federal voice in policy matters. Apart from the development of the community college sector as a major source of postsecondary education in the 1960s, the answer would appear to be negative. Universities resent even the provinces' intrusion into their affairs, as perhaps they should. There is certainly no evidence that provinces are particularly gifted in the production of systems to support educational excellence.

On the assumption that Canadians wish to see development of a strong postsecondary education system, what specific changes might be most beneficial?

There are two preconditions for a meaningful attempt to evolve a new system for funding PSE in Canada. First, *the federal government should abandon its historic insistence on equal per-capita splitting of EPF between the health and postsecondary education sectors across all provinces.* This would

clear the way for funding discussions based upon the current realities of expenditure patterns in the provinces.

Second, there must be an end to the notion that the transferred tax points remain federal revenue. This would require removing the revenue stream associated with the tax points from future calculations under the formula. If these two preconditions can be met, then the following steps might be considered:

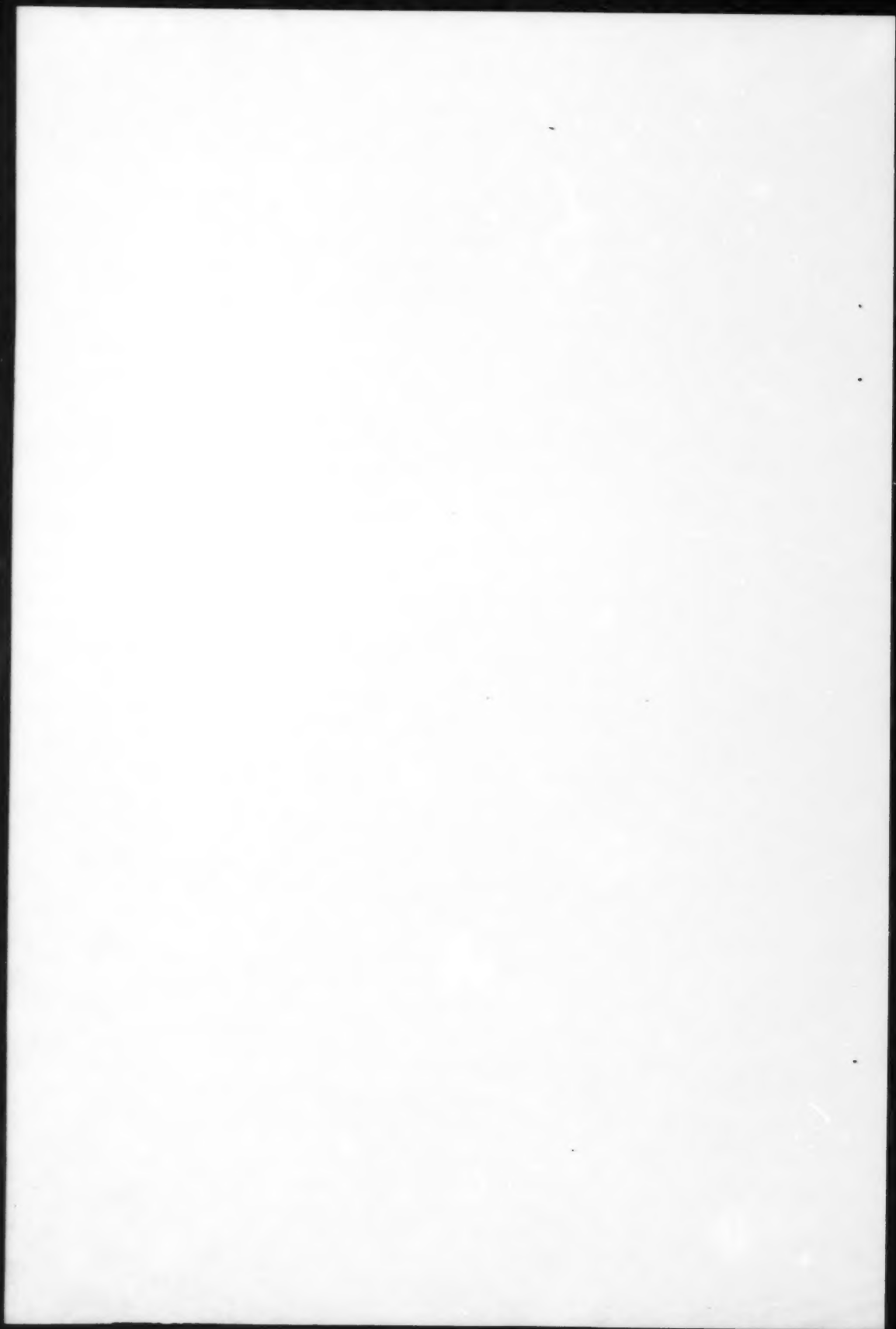
- Negotiating a split in the health and PSE cash components and locating them in different sections of the EPF arrangements.
- Removing the freeze from the EPF arrangements as soon as possible, but certainly no later than the end of fiscal year 1992-93.
- Restoring the original GNP escalator to the cash portion of the *health* transfer only. The transferred tax points would then not be protected by the formula, but only by equalization. In a general recession, the federal responsibility would be only to its own expenditure stream, not to a portion of provincial streams.
- Transferring to the provinces tax points equivalent to the cash portion of the PSE component of EPF, thus ending the federal role in funding the operational costs of PSE. This would clarify funding accountability in the PSE field and respect the constitutional reality.
- Maintaining federal funding for the various student aid programs.
- Increasing significantly federal funding of research, including an appropriate allowance for the indirect costs of research.
- Developing models with federal support for education-industry-government strategic partnerships. Quebec's experience and models should be closely examined for their relevance to the rest of Canada.

There would appear to be no evidence that access to postsecondary education is a problem for the majority of students. Therefore, no significant new resources should be allocated to the current student aid program, beyond those required to maintain its current level. However, targeted access programs continue to be vital in enabling members of minority groups to pursue their educational goals.

Finally, there is no evidence to suggest that Canada should introduce the use of vouchers in undergraduate postsecondary education. The technical and political problems of vouchers are complex; when coupled with Canada's need

to respond to its sparse population and regional diversity, the actual task of introducing such a system is daunting indeed. If for policy reasons a voucher system is still deemed desirable, very careful research, modelling, and testing should be undertaken before a significant commitment is made.

Whether or not the resulting funding pattern would be substantial enough to persuade the provinces to collaborate with each other and the federal level cannot be stated with certainty, especially in the current constitutional turmoil. However, at least the above proposals would result in the clarification of major, historic differences, and of federal and provincial roles in post-secondary education, while maintaining a level of federal funding of critical components of postsecondary education, and increasing funding to research and development. In Canada's current historical context, these would not be insignificant achievements.



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